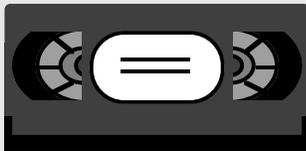


# *Lead-Based Paint Maintenance Training Guide*

**Work Smart, Work Wet, and Work Clean  
to  
Work Lead Safe**



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*Prepared by the  
National Environmental Training Association  
Under a Grant From  
U.S. Environmental Protection Agency and  
U.S. Department of Housing and Urban Development*

This training document can be purchased from the National Environmental Training Association at 602-956-6099 or at HUDUSER at 1-800-245-2691.

The cost is \$129.00 and includes the trainers guide, video, planning tool, and paper copies of the student guide and transparencies.

If you have questions about this material, please contact Dana Bres at the HUD Office of Lead Hazard Control (202-755-1785 ext.117).

# *Lead-Based Paint Maintenance Training Guide*

**Work Smart, Work Wet, and Work Clean  
to  
Work Lead Safe**

*ISBN 1-880996-23-5*

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*2930 East Camelback Road, Suite 185*

*Phoenix, Arizona 85016-4412*

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*This training package was prepared by the National Environmental Training Association (NETA) under  
U.S. Environmental Protection Agency (EPA) grant CX-824712.*



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## FOREWORD

### SCOPE OF TRAINING PROGRAM

*This training program presents the procedures for minimizing lead dust generation and soil contamination during maintenance activities, as defined by the United States Environmental Protection Agency (EPA) and the United States Department of Housing and Urban Development (HUD). If these procedures are correctly implemented, the risk of lead exposure to maintenance personnel, children, residents, and the families of maintenance personnel can be minimized. The course meets requirements for training maintenance workers on lead-based paint hazards.*

*This training program does not train maintenance workers to do lead abatement. In addition, it does not fully discuss the employer's responsibility for worker health and safety. For example, topics that are not covered are:*

- *Exposure Assessment*
- *Respiratory Protection*
- *Medical Surveillance*
- *Lead-Based Paint Inspection*
- *Any applicable training required by OSHA 29 CFR 1910 and 1926 General Industry Standard and Lead in Construction Standard*

*Module IV and VI of this **Training Guide** and attachments list resources the employer can consult regarding these health and safety issues.*

### QUALIFICATIONS OF THE TRAINER

*The trainer delivering this training program must have first attended this program in its entirety through a separate training provider. The trainer should have previous training experience or attend a train-the-trainer course and should have additional lead-related experience and training. Available courses are: Abatement Supervisor, Worker, Inspector, Risk Assessor. A list of training providers can be found in the Appendix of **HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, June 1995**, available from HUD USER (1-800-245-7691). You may contact the National Environmental Training Association at 602-956-6099 for information on train-the-trainer workshops.*

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## QUALIFICATIONS OF THE MAINTENANCE MANAGER

*The person in charge of maintenance jobs involving lead-based paint should have extensive work experience in maintenance and/or construction in addition to this training course. This background is necessary to answer the questions posed in the Lead Job Checklist discussed in Module IV, and to make informed decisions regarding the selection of the proper equipment and procedures for each type of maintenance job.*

## ACKNOWLEDGEMENTS

*The National Environmental Training Association recognizes the contributions of the many people who generously shared their time and resources for the development and wide distribution of these training materials. This **Training Guide** is a companion piece to the **Lead-Based Paint Maintenance Training Video** and the **Planning Tool**. The materials were developed under a grant to the National Environmental Training Association (NETA). Funding for the grant was provided to the U.S. Environmental Protection Agency (EPA) by the U.S. Department of Housing and Urban Development (HUD).*

*Ms. Betty Weiner, Chemical Management Division, EPA Office of Prevention, Pesticides and Toxic Substances, served as the Project Officer. Mr. David Jacobs and Ms. Carolyn Newton served as HUD's technical representatives for the project.*

*Carol J. Kinias, NETA Director of Training, managed and coordinated the project. Oversight management was by NETA's Executive Director Charles L. Richardson. The **Training Guide** was written by Joan Ryan, CET, of The Aulson Company, Inc., Middleton, MA; Carol Kefford Eshelman, CET, Group CK, Baltimore, MD; and Carol J. Kinias. The video was produced by NETA's Director of Media Services Pam Chase and written by Grant Williams. John Zilka, Applied Systems Inc., Aliquippa, PA, developed the **Planning Tool** and served as primary technical consultant for the project. Instructional specialist was Doris Adler, National Asbestos and Environmental Training Institute, Ocean, NJ. Gerry Dombek of Pro Design Graphics, Phoenix, AZ, created the graphics and desktop published the **Planning Tool** and the **Training Guide**.*

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*NETA is indebted to the many representatives from concerned organizations, regulatory agencies, and housing authorities who served on the Technical and Advisory Committee. Thank you to all listed below, who provided excellent advice, guidance, and review of project objectives, materials, and methods.*

## **TECHNICAL AND ADVISORY COMMITTEE AND REVIEWERS**

*Vickie Ainslie, Georgia Tech*

*Mark Chamberlain, LPN, Wisconsin Dept. of Health*

*Courtney Culp, National Center for Housing Management*

*Bill Derbyshire, Kennedy-Kreiger Institute*

*Dennis Glancey, Philadelphia Housing Authority, Maintenance Dept.*

*Jeanne Gorman, Ph.D., Lead Smart Homes*

*David E. Jacobs, Director, Office of Lead Hazard Control*

*Ron Jones, National Center for Lead Safe Housing*

*Robert Jordan, Atlanta Housing Authority, Maintenance Dept.*

*Larrie Lance, Dr.PH, California Department of Health Services*

*Eileen Lee, Ph.D., National Multi-Housing Council*

*Linda Lewis, Alice Hamilton Occupational Health Center*

*Dirck Leys, National Alliance for Encapsulant Technologies*

*Robert Manware, Occupational Safety and Health Administration (OSHA), Department of Labor*

*Richard Ritota, New Jersey Department of Health*

*Rollins Ross, National Association of Minority Contractors*

*Ellen Roznowski, Occupational Safety and Health Administration*

*Don Ryan, Alliance To End Childhood Lead Poisoning*

*John Schwemberger, Chemical Management Division, EPA OPPT*

*Morgan Scott, The Scott Environmental Group*

*Alexander Shaw, National Institute for Building Sciences*

*Aaron Sussell, National Institute of Occupational Safety and Health*

*Ellen Tohn, Alliance To End Childhood Lead Poisoning and National Center for Lead Safe Housing*

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## INTRODUCTION

### ABOUT THIS COURSE

*This course was developed for the U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA). It is designed for maintenance supervisors and maintenance staff at multifamily rental properties built before 1978 which contain or may contain lead-based paint.*

*The Task Force on Lead-Based Paint Hazard Reduction and Financing recommended this training to respond to the threat that lead-based paint poses to affordable housing as well as to children's health. Completion of this course by maintenance supervisors (and their training and oversight of maintenance staff) constitutes one of the "Essential Maintenance Practices" recommended for owners of all pre-1978 rental properties. This national Task Force included representatives of the real estate, rental housing management, lending, insurance, and contracting industries, as well as advocates for affordable housing and lead poisoning prevention and staff of federal, state, and local agencies.*

*There are no requirements for maintenance supervisors to take this course; however, HUD and EPA recommend this instruction. It teaches practical changes in maintenance practices that can prevent lead hazards from developing by safely repairing deteriorating paint and cleaning up lead dust hazards. HUD and EPA agree with the Task Force that many rental property owners will find it in their own best interest to have maintenance supervisors and workers complete this one-day course. In addition to reducing the risk of a tenant's child being lead poisoned, proper training of maintenance staff may help property owners secure liability insurance and financing. This training may also help to respond to tenants' questions about the measures being taken to manage lead-based paint safely in place.*

*In the Fall of 1995, the National Environmental Training Association (NETA) received a grant from HUD and EPA to prepare a one-day curriculum and training materials on lead-based paint hazards for maintenance personnel. The following resources have been developed:*

- 
- *This **Training Guide** for those conducting the training,*
  - *An interdependent **Lead-Based Paint Maintenance Training Video** that presents and reinforces main concepts of the training, and*
  - *A **Lead-Based Paint Maintenance Planning Tool** for use by maintenance personnel during the training and on the job.*

*This course is designed to instruct professional training providers and maintenance supervisors who have appropriate skills and experience to train workers at their sites. This course provides the opportunity to help workers and supervisors to understand their role in preventing lead exposure in children, themselves, their co-workers, and residents of the dwellings they maintain. The **Training Guide** contains factual information on lead-based paint hazards. It also contains suggested methods for delivery of the course.*



# Notes to Instructor

## PROGRAM DESIGN

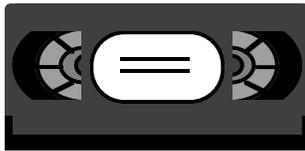
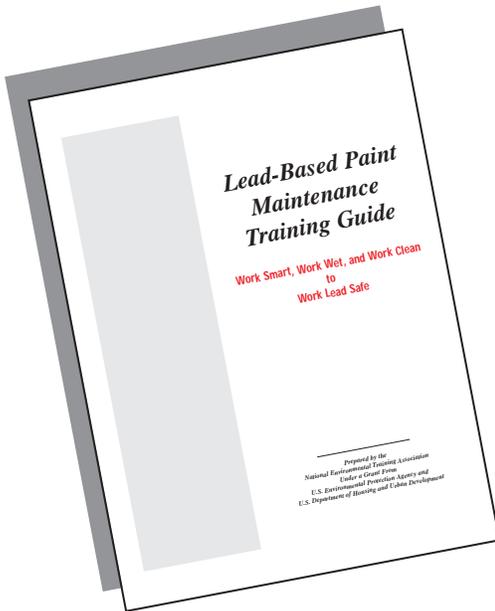
### TRAINING GUIDE

*The **Lead-Based Paint Maintenance Training Guide** contains information about procedures for minimizing and preventing exposure to lead-based paint hazards. It also suggests the best means of presenting this information, including training exercises and training aids.*

*It is divided into six modules:*

- 1. Lead Exposure and Maintenance Work*
- 2. Lead-Based Paint Hazards*
- 3. Lead Safety*
- 4. Planning Lead-Based Paint Maintenance Jobs*
- 5. Doing the Job*
- 6. Your Lead Maintenance Program*

*Viewgraph masters are included in the attachments for copying onto transparencies. The viewgraphs highlight the main points of each topic. Hand outs of viewgraphs are included for you to copy and distribute to students.*



### VIDEO

*The **Lead-Based Paint Maintenance Training Video** is designed to reinforce key messages and to motivate maintenance personnel to think about and use simple steps to prevent exposure to lead. It uses real life situations, step-by-step demonstrations, and humor to say “The key to reducing lead exposure to yourself and those around you is using safe work practices.”*

### LEAD-BASED PAINT MAINTENANCE PLANNING TOOL

*The **Lead-Based Paint Maintenance Planning Tool** is designed to assist maintenance personnel to make decisions on the job to minimize exposure to lead-based paint hazards. It uses pictures to help workers learn even if they do not read English well.*

*Each attendee is to receive one copy of the **Planning Tool**. You may order additional laminated copies or photocopy the pages. It is for use during the training and then on the job upon completion of the training.*





## TRAINER GUIDELINES

*If you think of the trainers you have had in the past, you will probably remember those who stood out as rare instructors—the ones who motivated students and stimulated learning. Others, though they may have been knowledgeable, were unable to create a true learning experience for their students. The purpose of this section is to help you become one of the exceptional, effective instructors.*

### ADULT LEARNERS

*To be effective, you need to motivate your students. Adults learn best when the instructor shares information with students as a partner in learning.*

*Adult Learners usually like to:*

- *Understand the objectives for the class;*
- *Actively participate;*
- *Apply new material to what they already know;*
- *Solve problems;*
- *Receive respect from the instructor;*
- *Discover the answers themselves;*
- *Practice to reinforce learning; and*
- *Experience varied presentations, to learn by hearing, seeing, and doing.*

### TRAINING MATERIALS

*The materials in this course have been designed to teach multiple learning styles. They are based on the principle that we remember most when we see, say, and do. They include opportunities for class participation, including group discussion and practice.*

#### TRAINER'S TIPS

*Trainer's Tips are placed in shaded boxes throughout the Training Guide.*

#### Trainer's Tips

*Trainer's Tips are included throughout the manual. These include additional information, suggested questions, or thoughts on how to present the material. These tips are italicized and are placed in shaded boxes throughout the manual.*



*Points that are important and should be emphasized are marked with an exclamation point in a triangle.*

## **CLASSROOM PRESENTATION**

*Delivering your message involves a range of skills that deal with how you present the information and how you relate to your students—a combination of informing, motivating, and entertaining.*

*Use the following information to help you present this training in the best ways for your students to learn.*

### **Presentation Skills**

***The way to become a truly effective trainer is through practice.** Before delivering this training, be sure to rehearse privately and in front of your family, friends, or fellow workers. Ask them to coach you. It is essential that you understand **what** you are teaching and **how** to communicate the information to the students.*

***You will probably experience some nervousness as your presentation approaches.** It might help you to know that most Americans report feeling apprehensive about public speaking. Stagefright is a normal response that can actually be used to your advantage—you can transform that nervous tension into enthusiasm and energy.*

***Your most effective presentation style is to speak conversationally.** Just be yourself, treat your students with respect, and allow time for them to participate. The overheads and the other trainer materials cover the topics that the class must learn.*

***A crucial component of an effective presentation is organization.** Listeners should be able to follow your main points and have a sense of where you are in the talk. Use the overheads, flip charts, video, etc. to help your students focus.*

*When introducing and facilitating group activities:*

- *Be clear about objectives and instructions;*
- *Explain why you are doing the activity;*
- *Let participants know how much time they have; and*
- *Allow time for discussing the activity.*



*Don't be afraid to say "I don't know" if someone asks a question you can't answer. If no one in the class knows the answer, tell the student you will find the answer to the question after class.*

***Set the tone of the sessions.** You should create an atmosphere that is relaxed, friendly, informal, and helpful rather than one that is overly rigid and stiff. Encourage participation right from the start by asking questions and getting everyone involved in discussion. Let students know that they are welcome to ask questions and suggest that they will get more out of the training if they participate.*

### **Learner Participation**

*Instructors should involve students at every opportunity during the training. While lecture is sometimes necessary to provide information, adults usually learn a subject much better if they can take part in the learning process. In fact, adults enjoy participating.*

*The discussions and exercises in this training are designed to encourage group participation. When lecture is the primary means of presentation, include students by asking for questions and comments. This training will be most successful if everyone contributes.*



### Training Checklist—Ways to Involve Students

*The following is a list of ways to involve your students when you prepare to deliver this training:*

- Explain the purpose and importance of the session.*
- Review the agenda with the participants.*
- Treat participants with respect.*
- Speak clearly.*
- Use natural facial expressions and gestures to reinforce your message.*
- Move around the room during lectures.*
- Make eye contact, smile, and nod naturally.*
- Vary voice tone and volume.*
- Allow time for questions.*
- Show enthusiasm.*
- Use appropriate humor to maintain rapport.*
- Vary your presentation with lecture, discussion, video, etc.*
- Give participants choices (for example, working alone or in groups for some exercises).*
- Encourage student participation.*
- Ask the participants to answer questions and give comments, e.g. “What would you do?” or “What equipment would you suggest?”*
- Use exercises so participants practice using what they are learning.*
- Encourage discussion.*
- Cover all the material.*
- HAVE FUN!*

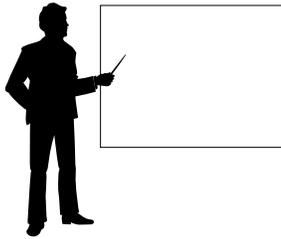


## PRIOR TO TRAINING DAY

### CHECK MATERIALS

1. *Verify that all of the following items are included in your training package:*
  - *This **Training Guide***
  - *Attachments listed in the Table of Contents*
  - *A copy of the **Lead-Based Paint Maintenance Planning Tool***
  - *The **Lead-Based Paint Maintenance Training Video***
2. *Order one copy for each student of the **Planning Tool** at \$10 each from NETA by FAX (602-956-6692), or by phone (602-956-6099) or HUD USER by phone (800-245-2691).*
3. *Order one copy for each student of “Protect Your Family From Lead in Your Home” from the Lead Information Center Clearinghouse at 800-424-LEAD.*

### ADMINISTRATIVE TASKS



*Thoroughly review all the training materials. As you go through the **Training Guide**, follow the viewgraphs and the **Planning Tool**, and watch each **Training Video** segment as it is introduced.*

### GATHER EQUIPMENT

*Gather the following training equipment:*

- *An overhead projector*
- *A VHS video player and monitor*
- *Blank transparencies (optional)*
- *Transparency pens (optional)*
- *Pens/pencils*
- *Scrap pieces of paper*
- *Flip chart and markers (optional)*
- *Black board (or grease board) with writing supplies (optional)*



*Gather materials and equipment to show and use for exercises:*

- *Poly film*
- *Tape*
- *All-purpose cleaner*
- *Rags*
- *Poly bags*
- *Towelettes*
- *Tack pads*
- *String mop heads*
- *Spray mister*
- *Stapler*
- *Scrapers*
- *Utility knife*
- *Broom*
- *Dust pan*
- *HEPA vacuum*
- *Signs/barrier tape*
- *Mop handles (including self-wringing)*
- *Buckets (double-sided and single)*
- *Mini containment*
- *Protective eye wear*
- *Coveralls*
- *Latex/rubber gloves*
- *Disposable cotton gloves*
- *Disposable/recyclable clothing*
- *Respirator w/HEPA filter*

*If an overhead projector is not available, then both the view-graphs and students' responses can be written on a board or flip chart.*



## COPY TRAINING MATERIALS

- *Copy viewgraphs onto transparencies. This can be done on most copying machines.*
- *Copy hand outs and exercise sheets*

## PREPARE VIDEO

*Rewind the video so that when it is shown to the class it starts at the beginning.*

## TRAINING ROOM CHECKLIST

- Is the room isolated enough to minimize interruptions?*
- Is the temperature cool?*
- Can you adjust the lighting for different visual aids?*
- Are there enough chairs?*
- Are the chairs comfortable?*
- Are there writing surfaces for the students?*
- Are the tables and chairs or desks set up so participants can see and work together?*
- Can everyone see the screen?*
- Are coffee and other refreshments available?*
- Do you have all audio-visual equipment you need (including extension cords, spare bulbs, etc.?)*
- Have you practiced using the AV equipment? Does everything work? Is it in focus?*
- Do you have flip charts, markers, etc.?*



## TRAINING DAY

*Now that you've practiced and prepared thoroughly, you're ready to begin your training session.*

***Be the first person in the training room.*** Meet and greet trainees as they arrive. This helps you establish a friendly, informal rapport with trainees and shows them you care enough about the program to get there first.

***Use the names of trainees whenever possible.*** Using first names builds rapport and communicates that you are interested in each class member as an individual. Have everyone wear name tags or put "name tents" at their places to help them work together.

***Involve students immediately. Explain what they need to know, why it's important, and how they'll be able to apply their knowledge back on the job.*** If employees are required to attend the session, you must convince them why they need this training to do their jobs before they will learn. Grab their attention as soon as you can by answering the trainees' question, "Why is this training important?"

***Let people know what to expect during the session.*** Provide a road map of what will be covered, an explanation of classroom rules (such as no smoking), and a discussion of class length, break times, restroom locations, and other logistics.

***Establish credibility during the opening segment of the session.*** Trainees' perception of your credibility is influenced as much by how you represent information (style) as it is by what you actually convey (content). To establish credibility:

- *Be prepared and know your material;*
- *Find a common ground or communicate shared interest with trainees;*
- *Project sincerity, confidence, and competence;*
- *Use relevant evidence to support your points;*
- *Structure your talk to make the organization apparent;*
- *Maintain eye contact with trainees;*
- *State directions with confidence and credibility, e.g., "Apply the label like this," rather than "I think this might be the way to apply the label," and*
- *Use inoffensive humor when appropriate.*



## LEARNING OBJECTIVES

*The learning objectives are the backbone of the course design. They are listed here and again at the beginning of each section. They are a guideline for you. It is not necessary to read them at the beginning of each section, but they should be discussed.*

**TIME: 60 MINUTES**

### **MODULE I—LEAD EXPOSURE AND MAINTENANCE WORK**

*Upon completion of this training unit, maintenance personnel should be able to:*

- *Describe the effects of lead exposure in both children and adults.*
- *List two ways that lead enters the body.*
- *Describe and explain the importance of the two roles of maintenance personnel in preventing lead exposure.*

**TIME: 30 MINUTES**

### **MODULE II—LEAD-BASED PAINT HAZARDS**

*Upon completion of this training unit, maintenance personnel should be able to:*

- *Tell where lead-based paint may be found.*
- *Define “lead-based paint hazard.”*
- *Locate and identify the lead-based paint hazards commonly found in a dwelling unit.*
- *List the two approaches to controlling lead-based paint hazards.*
- *Describe maintenance activities that manage lead-based paint.*

**TIME: 60 MINUTES**

### **MODULE III—LEAD SAFETY**

*Upon completion of this training unit, maintenance personnel should be able to:*

- *Discuss the need to notify and protect residents.*
- *Recognize materials, equipment, and personal protective clothing used on lead-based paint maintenance jobs.*
- *Recognize proper work practices that minimize dust.*
- *List five prohibited work practices.*
- *List five unsafe work practices.*



- *State the importance of thorough cleaning of the work area, proper personal hygiene, and personal decontamination.*

**TIME: 60 MINUTES**

#### **MODULE IV—PLANNING LEAD-BASED PAINT MAINTENANCE JOBS**

*Upon completion of this training unit, maintenance personnel should be able to:*

- *Plan a lead-based paint maintenance job.*
- *Recognize an activity as either low risk or high risk.*
- *Choose appropriate materials and equipment for the job.*
- *Choose appropriate personal protective clothing and equipment for the job.*

**TIME: 165 MINUTES**

#### **MODULE V—DOING THE JOB**

*Upon completion of this training module, maintenance personnel should be able to:*

- *Explain safe work practices: Work Smart, Work Wet, Work Clean.*
- *Use cleanup procedures for low risk and high risk jobs.*
- *Use steps to remove carpet.*
- *Explain decontamination of self and equipment.*
- *Complete a quality assurance checklist.*
- *Plan low risk and high risk jobs using the **Planning Tool**.*

**TIME: 45 MINUTES**

#### **MODULE VI—YOUR LEAD MAINTENANCE PROGRAM**

*Upon completion of this training module, maintenance personnel should be able to:*

- *Explain management's role in the Lead Maintenance Program.*
- *Explain the importance of ongoing communication with residents.*
- *Recognize procedures that you currently use that need to be modified to assure safe work practices are followed for lead-based paint work back on the job.*



# Agenda

## LEAD-BASED PAINT MAINTENANCE TRAINING PROGRAM

7:45 - 8:00

### REGISTRATION

### MODULE I

### LEAD EXPOSURE AND MAINTENANCE WORK

8:00 - 8:30

Course Introduction

8:30 - 9:00

Lead Exposure

### MODULE II

### LEAD-BASED PAINT HAZARDS

9:00- 9:30

Where You Find Lead-Based Paint  
Recognizing Lead-Based Paint Hazards  
Controlling Lead-Based Paint Hazards  
Managing Lead-Based Paint

9:30 - 9:45

### BREAK

### MODULE III

### LEAD SAFETY

9:45 - 10:45

Resident Notification  
Preparation  
Hygiene and Work Practices  
Cleanup  
Decontamination

### MODULE IV

### PLANNING LEAD-BASED PAINT MAINTENANCE JOBS

10:45 - 11:45

Lead-Based Paint Management Planning Tool  
Lead Job Checklist  
Materials and Equipment  
Personal Protection



11:45 - 12:15

**LUNCH**

MODULE V

**DOING THE JOB**

12:15 - 2:00

Work Practices  
Cleanup  
Carpet Removal  
Decontamination  
Quality Assurance

2:00 - 2:15

**BREAK**

2:15 - 3:15

**EXERCISES**

Planning a Low Risk Activity  
Planning a High Risk Activity

MODULE VI

**YOUR LEAD MAINTENANCE PROGRAM**

3:15 - 4:00

Integrating Lead-Based Paint Maintenance Into Your  
Existing Maintenance Program  
Working Lead Safe Everyday

**CLOSING**



# Module I

# *Lead Exposure and Maintenance Work*

MODULE TIME: 60 MINUTES

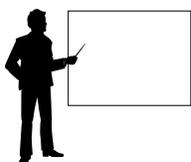
Time: 30 minutes

## COURSE INTRODUCTION

### INTRODUCTIONS



### ADMINISTRATIVE TASKS



### GREET PARTICIPANTS

*Introduce yourself. Talk briefly about your training and experience with lead-based paint maintenance jobs. Tell the class why you are teaching this course.*

*Ask the class to individually:*

- *Introduce themselves,*
- *Tell about their experience working with lead-based paint, and*
- *Discuss what they would like to learn today.*

### SIGN-IN/SIGN-OUT SHEET

*You may save time by asking people to sign in before the class starts or pass the sheet while people are introducing themselves.*

- *Have all participants complete the sign-in/sign-out sheet.*
- *Collect the sign-in/sign-out sheet after everyone has signed in.*

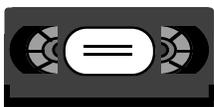
### ANNOUNCEMENTS

- *Review the safety information about the training room, such as where to exit during an emergency, etc.*
- *Tell the participants where they can find the rest rooms, coffee or other drinks, telephones, message center, etc.*
- *Notify participants of any smoking policy.*
- *Tell participants how much time is allowed for breaks and lunch, and when the class will end.*



*Emphasize how important it is to return from breaks and lunch on time. Extended breaks and lunch will result in failure to complete this training program in its entirety. Use a friendly, fun sound, like a bell or horn, to reconvene the class quickly.*

SHOW VIDEO 1



*To start the class, first show Segment 1 of the videotape called “What Do You Know About Lead?”*

*This first segment of the video is designed to catch the students’ attention, to interest them in the course, and to motivate them to want to change unsafe work practices. It emphasizes the importance of handling lead-based paint safely and presents effects of lead on real individuals. It is recommended that you play the tape before any discussion.*

*After the tape tell the class:*

This course is about preventing childhood lead exposure from lead-based paint. There are 1.7 million children in America, that is almost 9% of our nation’s children, with elevated lead blood levels. In some cities, over 30% of the children entering school have been poisoned.

While lead was banned from household paint in 1978, most homes built before then still have lead-based painted interior and exterior surfaces. The problem is complex, and the responsibility for fixing it is broad. It will be managed and corrected through a combination of efforts from government, business, housing owners and managers, insurance companies, parents, and you who maintain the painted properties.

This course only deals with your part. It teaches you proper procedures for reducing risk from lead during typical maintenance tasks. It assumes you already know how to do your job when you don’t run into lead-

based paint. It just teaches you what to do differently when you work on lead-based painted surfaces.

By following the information in this course, you can do your part to prevent lead-based paint hazards and to protect the residents, particularly children, yourselves, your co-workers, and your families.

## VIEWGRAPH I—1

*Review with the class the agenda for the training session.*

### COURSE TOPICS

- Lead Exposure
- Lead-Based Paint Hazards
- Lead Safety
- Planning and Performing Lead-Based Paint Maintenance Jobs
- Your Lead Maintenance Program

I-1

The course topics that will be covered are:

- The effects of exposure to lead-based paint in children and adults and how to avoid exposure
- Lead-based paint hazards: What they are and where they are commonly found in a dwelling unit
- Lead safety
- Planning lead-based paint maintenance jobs and using safe work practices that don't create and spread lead dust
- Integrating what you learn here into your lead maintenance program

Time: 30 minutes

## LEAD EXPOSURE AND MAINTENANCE WORK

*In this module, it is important to emphasize that lead exposure often has no identifiable symptoms and that a blood test is the only sure way to determine lead exposure.*

When we complete this module, you should be able to:

- Describe the effects of lead exposure in children and in adults.
- List two ways that lead enters the body.
- Describe and explain the importance of the two roles of maintenance personnel in preventing lead exposure.

### VIEWGRAPH I—2

#### MOD I— LEAD EXPOSURE



##### Learning Objectives

- ┆ Effects of Lead Exposure
- ┆ How to Recognize Lead Exposure
- ┆ How Lead Enters Body
- ┆ Your Role in Prevention

I—2

### DISCUSSION



*Ask participants to quickly list maintenance activities they routinely perform.*

*Place a blank transparency on the overhead projector or use a flip chart. Write the answers as they are given.*

*Then ask them which activities may involve disturbing lead-based paint or creating lead dust (for example, patching a hole in a wall painted with lead paint).*

*Explain:*

This course will give you information on how to perform these and other tasks to minimize lead exposure to residents and to protect workers and their families.

## THE HEALTH EFFECTS OF LEAD EXPOSURE

### VIEWGRAPH I—3

**EFFECTS OF LEAD EXPOSURE**

**CHILDREN**



- X Learning Disabilities
- X Behavior Problems
- X Slowed Growth
- X Hearing Problems
- X Anemia

I-3

*It is very effective to have a health professional present the health effects. If possible invite a nurse, doctor, or health department official to talk to the class.*

The effects of lead exposure are varied and can be severe and permanent. Children under the age of six are at the highest risk for lead exposure. This is because a child's body absorbs more lead and their developing brain and nervous system are more susceptible to permanent damage. At very high levels, lead can cause coma, convulsions and death.

The most common effects of lead exposure in children at lower levels are:

- Learning disabilities, reduced IQ and attention span
- Behavior problems, such as hyperactivity and delinquency
- Slowed growth
- Hearing problems
- Anemia

Lead exposure in adults can cause:

- High blood pressure
- Digestive problems
- Nerve disorders
- Anemia
- Reproductive problems

### VIEWGRAPH I—4

**EFFECTS OF LEAD EXPOSURE**

**ADULTS**



- X High Blood Pressure
- X Digestive Problems
- X Nerve Disorders
- X Anemia
- X Reproductive Problems

I-4

*Emphasize the following points that are important to everyone:*



**Lead exposure can cause the following effects on the male reproductive system:**

- Abnormal sperm
- Low sperm count
- Low sex drive
- Difficulty in having children
- Impotence

Pregnant women are particularly at risk. When a pregnant woman is exposed to lead, her unborn child may suffer neurological damage, low birth weight, and sometimes even miscarriage or stillbirth.

Unfortunately, there are usually no identifiable symptoms of lead exposure. **Blood testing is the only reliable way to confirm lead exposure.**

Although there are no specific symptoms that you can definitely say are from lead exposure, people with lead exposure sometimes complain of these common problems:

- Headache
- Stomachache
- Irritability
- Fatigue
- Loss of appetite
- Pain in joints
- Not able to concentrate

Children with lead exposure may also show vague symptoms of being distractable, hyperactive, or belligerent.

Because many of the symptoms of lead exposure are vague or similar to flu symptoms, parents may not get immediate medical attention. This is very critical for young children. The longer lead remains in the body of a young child, the higher the risk of permanent damage. It is also possible for a child to have an elevated blood lead level and show no signs of lead exposure at all. **So it is important that children who live in homes with lead-based paint be identified and tested.**

### VIEWGRAPH I—5

#### SYMPTOMS OF LEAD EXPOSURE



- ▲ Headaches
- ▲ Stomachache
- ▲ Irritability
- ▲ Fatigue
- ▲ No appetite
- ▲ Pain in joints
- ▲ Not able to concentrate

I-5

### VIEWGRAPH I—6



Children who live in homes with lead-based paint should be identified and tested!

I-6

## HOW LEAD ENTERS THE BODY

Lead is found naturally in the ground. It has been used to make thousands of consumer products including the following:

- Certain types of dishes and pottery
- Lead plumbing fixtures and solder
- Imported plastic mini-blinds
- Wine wrappings
- Inks in magazines, newspapers, and printed bags
- Gasoline

In its natural state, lead poses little to no health risk. However, everyone is at some risk of exposure to lead because the lead that was in the ground is now in our homes and work environment.

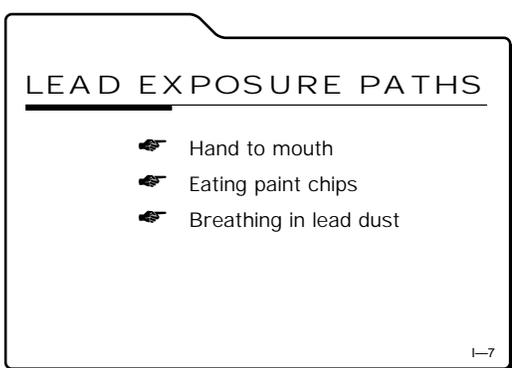
The focus of this course is on lead-based paint hazards—the primary cause of lead poisoning in children. Lead-based paint is found on the walls, woodwork, windows and exterior surfaces of homes and apartments built before 1978, the year lead was banned in residential paint.

Lead can enter the body by ingestion (swallowing) or inhalation (breathing). People can be exposed to lead in the following ways:

- Putting objects that are covered with lead paint or dust in their mouths
- Eating paint chips
- Breathing in lead dust (Lead dust is heavy and quickly settles, but during a maintenance job it can become airborne)

The most common ways lead gets into the body are swallowing and breathing lead dust.

### VIEWGRAPH I—7



DISCUSSION



## Ways Lead Gets in the Body

### Hand to Mouth (Swallowing)

*Ask the class for examples of how children and adults may get lead dust into their mouths. You may place a blank transparency on the overhead projector and write the answers on it as they are given, or write them on a flip chart or blackboard.*

*Examples may include the following (add any that are not quickly suggested by class members):*

#### **Children:**

- Sucking on lead-contaminated thumbs or pacifiers
- Peeling lead-based paint chips
- Putting dirty hands (from playing in contaminated soil or crawling on floors covered with lead dust) in their mouths
- Playing with toys coated with lead paint or lead dust
- Playing in lead-contaminated soil (from play areas)
- Using lead painted furniture and woodwork
- Being exposed to dust from clothing (worker's family is particularly at risk)

#### **Adults:**

- Putting dirty hands (from working in areas that contain lead dust) in their mouths
- Putting cigarettes, coffee cups, food, nails, and toothpicks contaminated from dirty hands in their mouths
- Participating in hobbies such as those that use weights, ammunition, fishing weights (split shot), and stained glass solder
- Having occupational exposure to lead

## DISCUSSION



## Breathing

*Ask the class to name sources of lead dust that can be inhaled. Place a blank transparency on the overhead projector and write the answers on it as they are given.*

*Examples include the following:*

- Past emissions from automobiles and factories
- Dust from routine maintenance activities such as scraping, sanding, and cleanup. (Lead dust generated by these activities can be inhaled, remain in the residence, and get on clothing.)
- Burning of lead-based paint
- Industrial sources

## SUMMARY/DISCUSSION



*Review the material by asking students to summarize the effects of lead exposure.*

*Points that should be mentioned are listed below:*

1. Because lead is in our living environment, we are all at some risk of lead exposure.
2. The effects of lead exposure in both children and adults are numerous. Children are more sensitive to the effects of lead exposure. For this reason, early detection and medical attention for children exposed to lead is important.
3. Lead exposure does not usually show readily identifiable symptoms. Young children with risk factors should have a blood test.
4. Lead exposure most commonly occurs from inhaling or ingesting lead dust, not from eating lead paint chips. In most instances hands won't look dirty or show signs of lead dust.

## ROLES OF MAINTENANCE PERSONNEL

### Roles maintenance personnel play in preventing lead exposure

As a maintenance worker, you play two roles in preventing lead exposure: protecting and informing.

#### Protecting

The most important way a maintenance worker can help to prevent or eliminate lead exposure is by repairing lead-based paint and by not creating lead hazards while doing repairs. By performing tasks according to the procedures in the **Lead-Based Paint Maintenance Planning Tool**, you are the first level of defense. By practicing proper procedures for managing lead-based paint, you can protect the residents of the dwelling unit, yourself, your co-workers, and your own family.

#### Informing

As maintenance workers, you also help to inform residents each time you answer residents' questions about the work you are doing. Residents are often curious about the maintenance job. Even more questions may arise as they see you using different equipment and procedures for work they have seen done differently before.

It is important for you to explain that you are using procedures that reduce exposure to lead to protect yourself and the residents. It is not your job to provide technical, medical, legal, or any other advice.

#### VIEWGRAPH I—8

**YOUR TWO ROLES**



**PROTECTING**  
Helping to prevent or eliminate lead dust

**INFORMING**  
Telling residents about your lead-safe work practices

I-8



*Show the copy of “Protect Your Family From Lead in Your Home” included with your course materials. You may provide copies for participants. Explain that the pamphlet is for tenants to learn about lead health effects, hazards, and protecting their families.*

## Why maintenance personnel are critical in preventing lead exposure

You play a major role in protecting children from lead exposure in this country. Remember that lead-based paint is usually a problem only when:

- the paint or the substrate (the wall or surface underneath the paint) deteriorates, or
- when you break through or otherwise disturb the paint to do other jobs.

Maintenance personnel who perform their everyday tasks using safe work practices minimize the generation and dispersal of lead dust and debris. This decreases the chance of lead exposure to the children living in the units, their own children, themselves, and their co-workers.

### SUMMARY/DISCUSSION



*Review the main points of this section by asking a class member to summarize their two roles in prevention of lead-based paint hazards.*

The maintenance person plays two roles in preventing lead exposures:

- protecting residents, yourself, and your family from lead exposure and
- informing residents at the time of the maintenance activity.

This is accomplished by:

- fixing deteriorated paint safely,
- by not creating new lead hazards while performing other tasks, and
- by informing residents of the reasons for the safety precautions that are being followed.

### EXERCISE

*Role play communication with the tenant. Pretend to be a concerned tenant and ask students to respond to questions about lead exposure.*



## Module II

# Lead-Based Paint Hazards

MODULE TIME: 30 MINUTES

### VIEWGRAPH II—1

MOD II—LEAD-BASED PAINT HAZARDS 

**Learning Objectives**

- Where you find lead-based paint
- Recognizing lead-based paint hazards
- Controlling lead-based paint hazards
- Managing lead-based paint

 II-1

When we complete this module, you should be able to:

- Tell where lead-based paint may be found.
- Define “lead-based paint hazard.”
- Locate and identify the various lead-based paint hazards commonly found in a dwelling unit.
- List the two approaches to controlling lead-based paint hazards.
- Describe maintenance activities that manage lead-based paint.

### VIEWGRAPH II—2

LEAD-BASED PAINT: 

- Most houses built before 1978
- Interior and exterior surfaces

 II-2

## WHERE YOU FIND LEAD-BASED PAINT

Most homes built before 1978 are likely to contain some lead-based paint. **This is key. Remember this date.** Lead-based paint was used on the exterior of homes, especially on porches, windows and doors because it withstood weather changes. It was used in interiors on woodwork, walls, floors, windows, doors, and stairs because it stood up to wear and tear. The most likely interior places are trim areas and all surfaces in kitchens and bathrooms. The older the home, the more lead there is likely to be. **Remember that not all lead-based paint is a hazard. Let's look at what makes it a hazard.**



## RECOGNIZING LEAD-BASED PAINT HAZARDS

*As you list these, show surfaces in the room as examples, and discuss how they pose a threat to children, like where they are located and how children reach them or adults impact them.*

VIEWGRAPH II—3

LEAD-BASED PAINT HAZARDS



- Lead contaminated dust
- Deteriorated lead-based paint
- Friction and impact surfaces
- Accessible surfaces
- Lead contaminated soil

II-3

A lead-based paint hazard is a condition in which exposure to lead from the following sources could have an adverse affect on human health:

- Lead-contaminated dust—the worst culprit
- Deteriorated (chipping and peeling) paint—that children do eat
- Friction surfaces like windows—the movement wears away the paint and grinds it to dust on sills
- Impact surfaces like doors, walls that get hit and banged, corners that stick out
- Surfaces accessible for children to chew, like window sills and railings
- Lead-contaminated bare soil—from past lead in gasoline and deteriorated exterior paint where children play

Lead paint becomes a health hazard when it chips or peels or when it turns into dust or contaminates soil through inadequate maintenance work practices. **If lead-based paint is maintained and monitored, and not disturbed, it is not a hazard.**

WHERE ARE LEAD-BASED PAINT HAZARDS MOST LIKELY TO BE FOUND AND WHAT DO THEY LOOK LIKE?

SUMMARY/DISCUSSION



*Ask the class to describe lead-based paint hazards they know about or would expect to find in their buildings.*

*Place a blank transparency on the overhead projector. Write the answers on it as they are given by the class.*

*Trim  
Doors  
Windows  
Window sills*

*Bare soil  
Bathrooms  
Kitchens  
Imported mini-blinds*

## VIEWGRAPH II—4

**CONTROLLING LEAD-BASED PAINT**



- Abatement—Permanently (20 years) eliminate the hazard
- Managing lead-based paint in place

II-4

## CONTROLLING LEAD-BASED PAINT HAZARDS

There are two types of lead-based paint hazard controls: abatement and management.

This course does not teach abatement. It is mentioned only in contrast to management activities that you can do following this training. You need to know the difference between the management activities you can do and the abatement activities that require more training.

## ABATEMENT OF LEAD-BASED PAINT HAZARDS

To abate lead-based paint hazards means to **permanently** eliminate them (or a fix that will last at least 20 years.) Such measures include the following:

- Replacement of lead-based painted building components
- Removal of lead-based paint
- Enclosure or encapsulation of lead-based paint
- Removing or permanently covering lead-contaminated soil

This training does not train you to perform the abatement of lead-based paint hazards. Persons who do lead abatement need to attend a separate course, pass a test, and be licensed or certified under state law.

## VIEWGRAPH II—5

**LEAD-BASED PAINT MANAGEMENT**



- Control lead hazards
- Use management activities
- “Work Smart, Work Wet, Work Clean”

II-5

## MANAGING LEAD-BASED PAINT IN PLACE

Properly managing lead-based paint controls likely exposure to lead-based paint hazards. In units where lead-based paint remains, we need to **maintain the paint to avoid lead hazards**.

Managing lead-based paint may include the following management activities, many of which are performed by maintenance personnel:

- Repairing painted surfaces (keeping the paint intact)
- Repairing rotted or defective plaster and wood that will cause the paint to blister, chip, and peel
- Removing and controlling dust

- Covering bare soil with sod, grass, or other temporary ground cover or limiting access in such ways as planting bushes.
- Treating friction and impact surfaces
- Treating protruding, chewable surfaces

In this course, you will learn to “**work smart, work wet, and work clean**” to minimize lead dust during your maintenance jobs that involve lead-based paint. These good work practices will control the risk of lead exposure to yourselves, your co-workers, your families, and to residents living in the units you maintain. In other words, you will learn to ***work safe***.



# Module III

# Lead Safety

MODULE TIME: 60 MINUTES

*This module emphasizes the importance of personal, residential, and family safety.*

*The video pieces are short scenarios that show workers using unsafe work practices. The goal is for the students to **identify and discuss usual work practices that are not safe when working with lead-based paint.***

*After the participants have seen the video piece, stop or pause the tape. Discuss with them the key points listed in the manual. These scenarios are designed to get people thinking about the consequences of their routine activities and to review some of the information covered earlier. The next module explains in detail how to do the jobs safely.*

*If there is debate over any point, don't spend time arguing. Instead:*

- *Agree that the student has made a point that should be looked at more carefully later in the program,*
- *Agree to get more information, or*
- *Agree to take the point up with management, if appropriate.*

*Go over the following learning objectives with the class.*

## VIEWGRAPH III—1

### MOD III— LEAD SAFETY

#### Learning Objectives

- ⊕ Resident safety and occupancy
- ⊕ Materials, equipment, and personal protection
- ⊕ Safe and unsafe work practices
- ⊕ Cleanup, hygiene, and decontamination

III—1

When we finish Module III, you will be able to:

- Discuss the need to notify and protect residents.
- Recognize materials, equipment, and personal protective clothing used on lead-based paint maintenance jobs.
- Recognize proper work practices that minimize dust.
- List five prohibited work practices.
- List five unsafe work practices.
- State the importance of thorough cleaning of the work area, proper personal hygiene, and personal decontamination.

VIEWGRAPH III—2

WHY SAFETY STEPS?

- ✓ Protect residents of the dwelling unit
- ✓ Protect yourself
- ✓ Protect fellow workers
- ✓ Protect your family

III—2

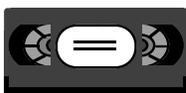
This module will introduce you to the additional protective clothing and specific equipment, materials, and work practices to be used when you do lead-based paint maintenance jobs.

These extra steps are needed to:

- Protect the residents of the dwelling unit
- Protect yourself
- Protect your fellow workers
- Protect your family

Over the next hour, we will watch and discuss five short video pieces. I think you will enjoy the characters with their personalities and humor, and maybe even see yourself doing some of the things we will “catch” them doing. You’ll meet Drake in a minute. While you watch this [first video](#), look for practices that may expose him and the residents to lead-based paint hazards, especially dust.

SHOW SAFETY VIDEO 2A



DISCUSSION



BEFORE THE JOB

*After viewing the video, ask the class what they believe was done incorrectly. Students should pick up these problems in the video:*

- *Mom not notified*
- *No drop cloth*
- *Didn't try to minimize or contain dust*
- *Children and toys allowed in work area*
- *Poor worker hygiene*

*Be sure to address the following points:*

- 1. Resident notification*
- 2. Roles of the maintenance person protecting and informing residents*
- 3. Resident traffic/access into work area*
- 4. Site preparation (drop cloth/poly film)*
- 5. Hygiene and contamination*



*Emphasize that the procedures discussed below are all important to protect both workers and residents.*

## PROCEDURES FOR PROTECTING RESIDENTS

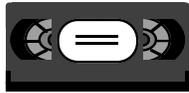
It is very important to have the residents out of the immediate work area. If allowed in the area, they can be exposed to lead dust and can track lead dust from the work area to other parts of the dwelling unit.

Only you who are doing the maintenance should be in the work area. The work area is that part of the dwelling unit in which you cover the floor area with the 6 mil poly film. Residents' belongings should also be covered with poly. Residents should not enter the work area until after the area has been properly cleaned.

**For high risk work, residents, especially children and pregnant women, must be out of the dwelling unit until after the work area has been thoroughly cleaned.**

Management is responsible for notifying residents of the need to be out of the unit and to move belongings to prepare the apartment for work, and to relocate them when necessary.

SHOW SAFETY VIDEO 2B



## PREPARATION TO MINIMIZE LEAD DUST

Now meet Tony and Freddie and look for clues on preparing for a lead-based paint maintenance job. **Remember: Preparation is the key to minimizing lead dust.**

DISCUSSION



*Ask the class what they believe was done incorrectly. They should mention:*

- *The old dusty drop cloths*
- *The drop cloth on resident's bed*
- *The drop cloth does not cover the entire area to the wall*
- *Resident's furniture is still in the room and not covered well*
- *Putting equipment on resident's furniture*
- *Personal protective equipment (coveralls, goggles)*
- *Electric sander, reciprocating saw*

*Specifically, point out:*

1. *Role as protector (protect resident's belongings)*
2. *Work site preparation (cover or remove furniture)*
3. *Use of appropriate materials/equipment, 6 mil poly film, 6 mil poly bags, cleanliness, security*
4. *Personal protection appropriate to the level of risk (gloves, coveralls, etc.)*
5. *Hygiene (carrying dust home or elsewhere)*
6. *Prohibited work practices (sander, reciprocating saw)*

*Remind the class that following good practices—**work smart, work wet, work clean**—is key to reducing exposure to lead.*

## VIEWGRAPH III—3



## MATERIALS AND EQUIPMENT THAT HELP KEEP MAINTENANCE JOBS SAFE

In addition to the typical tools and equipment used by maintenance personnel, some familiar items used to do lead-based paint maintenance jobs safely are:

- **spray bottle** with water to mist down work area (water keeps the dust down),
- **rags** for cleanup,
- **cleaner** (all purpose or one made specifically for lead, which picks up lead dust better than plain water), and
- **tape and staples** to fasten poly film.

These items can be found around the maintenance shop and even the home. There are special uses for all of these that we will discuss in detail later. *Some items are specific and critical to lead-based paint maintenance.* We will introduce them now, and you will learn all about them throughout the day.

**Six mil poly film** is polyethylene (or equivalent) thick plastic that is more resistant to tears and punctures than many ordinary plastic drop cloths. It is used to isolate the work area and contain the lead dust and debris. It is also better than a drop cloth because it is disposable and won't drag lead dust to the next dwelling.

**Six mil poly bags** are much thicker than household trash bags (which are usually only one mil) and more resistant to tears and punctures. They are used to dispose of contaminated materials and debris.

**HEPA vacuum** is a vacuum fitted with a special filter called a HEPA filter. HEPA stands for high efficiency particulate air. This filter is capable of trapping 99.96% of dust, including lead dust, that is not visible to the human eye. Most conventional household vacuums and shop vacuums *do not* have this filter. Thus, fine dust that is collected may escape through the exhaust of conventional vacuums. **Fine dust is more dangerous because it can more easily enter the body and be absorbed.** All manufacturers' instructions for the HEPA vacuum must be followed, including instructions for assembly, use, cleaning, maintenance, and bag replacement in order for the vacuum to work properly.

## VIEWGRAPH III—4



The HEPA vacuum is required for large, high risk jobs and is helpful for smaller jobs.

HEPA vacuums come in different sizes, and with dry or wet capabilities. A small one that is easy to carry from one job to the next is available for under \$500 from maintenance supply stores.

**VIEWGRAPH III—5**



**WHAT PROTECTIVE CLOTHING IS USED DURING MAINTENANCE JOBS?**

*Show examples of personal protective clothing shown on Viewgraph III—5.*

The protective clothing and equipment needed during lead-based paint maintenance jobs depends upon the size and extent of the project and the amount of dust. You need to know what to use to protect yourself from lead exposure. You may use any or all of these:

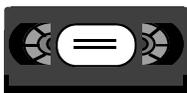
- Eye protection
- Coveralls (disposable or recyclable)
- Disposable cotton gloves
- Latex/rubber gloves (when using detergent)
- Respirator with HEPA filter

Notice the arrow for  high risk. High risk work requires the use of disposable or recyclable coveralls, gloves, and respiratory protection. You may use as little as none, or as much as all of these, depending upon the risk involved in the particular maintenance or repair project.

The OSHA lead standard requires workers to wear respirators if lead in the air exceeds the permissible exposure limit (PEL). The PEL for lead in the air is 50 micrograms per cubic meter of air for an eight hour time weighted average.

Protective clothing is designed to protect the person who is performing the work and is closest to the lead dust. Protective clothing does not protect the residents. However, proper use and disposal of protective clothing will protect you during the job. Not taking contaminated clothing home will keep you from bringing the lead home to your family.

## SHOW SAFETY VIDEO 2C



## HYGIENE AND WORK PRACTICES—DOING THE JOB

Here they are again (Tony and Freddie). How are they doing on protecting themselves and residents during the job? Also look for prohibited work practices.

## DISCUSSION



*Ask the class what they believe was done incorrectly. They should notice:*

- *Using the torch on lead-based paint*
- *Using coveralls and goggles*
- *The soda can*
- *Smoking on the job*
- *Tracking dust to other areas of dwelling*
- *Using resident's phone*

*Specifically, the following points should be addressed:*

1. *Personal hygiene (eating, smoking, drinking)*
2. *Prohibited work practices*
3. *Contamination beyond the work area*
4. *Protecting role*

***Emphasize that personal hygiene and decontamination are very important.***



## VIEWGRAPH III—6

## HYGIENE ON THE JOB

- ✗ No smoking
- ✗ No eating, drinking, or chewing gum, or tobacco
- ✗ No applying cosmetics

III—6

## PERSONAL HYGIENE

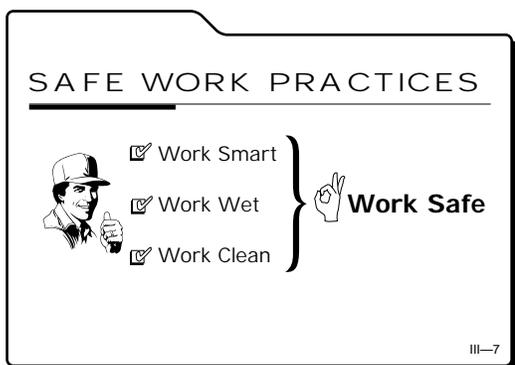
You can minimize your risk of lead exposure by following proper personal hygiene practices during and after performing the job. Personal hygiene during maintenance work involving lead-based paint includes the following:

- NO smoking
- NO eating or drinking, chewing gum, or tobacco
- NO applying cosmetics

Performing these activities with lead contaminated hands puts you at risk of lead exposure.

For all jobs, before eating, drinking, or smoking, and at the very end of the job, wash your face and hands thoroughly with soap and water or a towelette. This ensures that any lead dust that might be on your skin has been removed. For very small jobs, you may use a disposable baby wipe.

**VIEWGRAPH III—7**



**WHAT WORK PRACTICES ARE USED DURING LEAD-BASED PAINT MAINTENANCE JOBS?**

This course will teach you specific work practices to follow to protect yourself, residents, and your own family when performing jobs that involve lead-based paint hazards. By using these safe work practices, you will:

- Protect residents and their belongings,
- Minimize lead dust, and
- Do your best to protect your own, your fellow workers', and your family's safety.

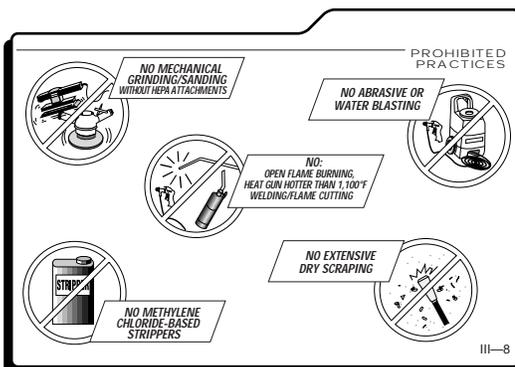
After lunch we will get into specifics, but for now, remember this phrase: **Work smart, work wet, and work clean** to work safe. You will protect residents by keeping them away from lead dust during and after your job.

In contrast to the work practices recommended in this course, there are certain activities that are **prohibited** when working in areas that might contain lead-based paint. They create dangerous levels of lead dust or fumes. **Never remove known, or suspected, lead-based paint by these methods:**

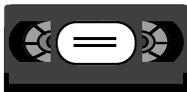
- Open flame burning or torching (including propane-fueled heat grids) and heat guns operating above 1,100°F release toxic fumes
- Machine sanding or grinding without HEPA local vacuum exhaust tool creates lead dust
- Uncontained hydroblasting, high-pressure washing or abrasive blasting, or sandblasting without HEPA local vacuum exhaust tool creates lead dust
- Using methylene chloride paint removal products releases carcinogenic fumes, and
- *Extensive* dry scraping creates lead dust (dry scraping is permitted near electric circuits).



**VIEWGRAPH III—8**



## SHOW SAFETY VIDEO 2D

SAFE WORK PRACTICES—  
CLEANUP AT THE JOBSITE

Let's check in on Drake as he cleans up after installing the new thermostat.

## DISCUSSION



## SAFE CLEANUP

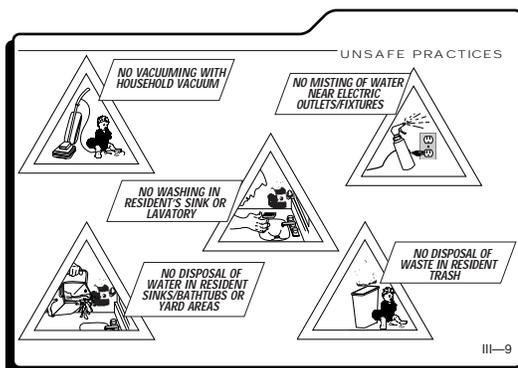
*Ask the class what they believe was done incorrectly. They should discuss:*

- *Improper cleanup (dry sweeping)*
- *Improper disposal (resident's trash)*
- *Dust not minimized with water*
- *Children in work area*

*Specifically, the following points should be addressed:*

1. *Proper cleanup (dry sweeping, improper disposal of debris, etc.)*
2. *Unsafe work practices*
3. *Role as protector*

## VIEWGRAPH III—9



Lead dust is very fine and may not be visible to the naked eye. Wet wiping the area with an all purpose cleaner or a cleaner made specifically for lead is a very important step in minimizing dust. At a very minimum, the area where you have been working must be wet wiped with a cleaner and then with rinse water. On a very small job, you may want to use two disposable baby wipes, one to wash and one to rinse. All of the cleaning materials (rags, sponges, or mops) must be put into a 6 mil poly bag for disposal or rinsed thoroughly so lead dust will not be spread to the next unit. They should not be reused.

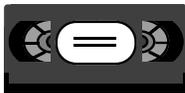
When you are finished, close, seal, and label the poly bags. Remove all materials, tools, and bagged debris from the work area and residence. Properly dispose of all bagged debris. Wet wipe all tools.

An easy jingle to remember good cleanup practices is “wet, wipe, and toss.” You will learn more about this later.

The following work practices are unsafe. Water near an outlet is an electrical hazard. The others can increase resident’s risk of lead exposure long after the job is finished:

- Using a resident’s shop vacuum or household vacuum
- Disposing water in resident’s sink/bathtub or yard area
- Washing in the resident’s sink or lavatory
- Using water near electric outlets/fixtures
- Disposing waste in the residential dwelling or community dumpster

SHOW SAFETY VIDEO 2E



DISCUSSION



## DECONTAMINATION—AFTER THE JOB

I think you will be appalled at the potential problems Tony and Freddie create as they leave their job.

*Ask the class what they believe was done incorrectly. They should mention:*

- *No personal decontamination*
- *Debris in thin bag*
- *Putting debris on top of food and toys in truck*
- *Eating, smoking*
- *Wearing clothing contaminated with lead dust home*

*Specifically, cover the following points:*

1. *Improper procedures for disposal (dumpster)*
2. *Improper handling of drop cloth, bag of debris*
3. *Contamination (clothing, equipment, taking dust away from site, personal vehicle)*
4. *Hygiene (smoking, eating, drinking)*
5. *Role to protect own family*



*Emphasize that cleanup, proper disposal of debris, and decontamination are just as important as working safely at the site.*

The extent of decontamination after the job depends upon the amount of dust generated during the job. At the least, you will ensure that you don't ingest dust or carry dust to the next job or home. So, wash off your face and hands with soap and water.

If you don't shower immediately after the job, then shower either before leaving the facility or immediately upon arriving home.

Any dust that has gotten on your clothes can be removed using a HEPA vacuum. If disposable or recyclable coveralls are not worn, change clothes prior to leaving the work site. You won't want to carry dust home or into your car.



*Emphasize these points in your module review. Ask class members to give examples for each of the main points.*

1. Lead-based paint maintenance jobs require specific protective clothing, equipment, and procedures to protect you, residents in your building, and your family from lead exposure.
2. Procedures have been developed to protect you, residents in your building, and your family when you do lead-based paint maintenance jobs.

There is an easy way to remember the work practices for performing the actual activity and the cleanup after the activity:

**Work Smart**—Be alert; prepare for the job; and take precautions for yourself and residents. Pay attention to all activities occurring in and out of the work area. Do not use prohibited and unsafe work practices.

**Work Wet**—To work wet means to keep the surface damp, so that sanding, scraping, planing, etc., do not generate and spread dust.

**VIEWGRAPH III—10**

**SUMMARY**



1. Use proper materials, equipment, and protective clothing.
2. Work smart, wet, and clean to protect you, residents, and your family.
3. Avoid prohibited and unsafe work practices.

III—10

Use a spray mister to lightly mist the surface just before you work on it.

**Work Clean**—Minimize spreading lead dust and debris by containing the area and by cleaning as you go and at the end of the job.

Following these work practices will help minimize the amount of lead dust created, which in turn minimizes the risk of tracking the lead dust to other parts of the dwelling unit.

Cleaning the work area after the activity is completed is also important. If the cleanup is incomplete or inadequate, any remaining lead dust or debris puts the residents at risk of lead exposure long after the maintenance person has completed the activity and has moved on to the next assignment.

### 3. Avoid practices that are prohibited or unsafe.

#### DISCUSSION



*Ask the class to list the prohibited and unsafe work practices. Write them on the blank overheads provided.*

Please learn these 2 lists! If you only learn one thing today, be sure you **avoid these prohibited and unsafe work practices.**

#### VIEWGRAPH III—11



#### PROHIBITED WORK PRACTICES

- Open flame burning or torching (including propane-fueled heat grids) and heat guns operating above 1,100°F release toxic fumes
- Machine sanding or grinding without HEPA local vacuum exhaust tool creates lead dust
- Uncontained hydroblasting, high-pressure washing or abrasive blasting, or sandblasting without HEPA local vacuum exhaust tool creates lead dust
- Using methylene chloride paint removal products releases cancer causing fumes, and
- *Extensive* dry scraping creates lead dust.

## VIEWGRAPH III—12



## UNSAFE WORK PRACTICES

- NO vacuuming with household vacuum
- NO misting of water near electric outlets/fixtures
- NO washing in resident sink or lavatory
- NO disposing water in resident sinks/bathtubs or yard areas
- NO disposing waste in resident trash



## Module IV

# Planning Lead-Based Paint Maintenance Jobs

MODULE TIME: 60 MINUTES

*This and the following modules are designed as practice sessions to ensure that students learn to perform lead-based paint maintenance jobs as shown in the **Planning Tool**. Emphasize that the cards in the **Planning Tool** have been laminated so that the supervisor can circle the items needed for each job and the worker can check off after completing the work. You may use a dry ink marker or grease pen on the laminated card, or copy the card and make marks on the paper copy.*

*The planning video shown in this module is the first of five video segments used to teach how to perform the following activities:*

- *Planning*
- *Preparation*
- *Performing the Task*
- *Cleanup*
- *Carpet removal*

*The videotapes feature a narrator discussing the best way to perform lead-based paint maintenance jobs and people performing various tasks using the **Planning Tool**.*

*During the discussions of the videos, have students refer to their copies of the **Planning Tool**. This will ensure that they become comfortable with it. Activities are included that have the students working in groups using the **Planning Tool** to prepare for a lead-based paint maintenance task.*

We are now going to learn the game plan. Vince Lombardi is credited with creating the concept of the game plan, and we borrow the idea from him and apply it to how we deal with lead-based paint.

### VIEWGRAPH IV—1

#### MOD IV— PLANNING



##### Learning Objectives

- ✓ Plan a job
- ✓ Recognize low and high risk
- ✓ Choose materials and equipment
- ✓ Choose personal protective clothing and equipment

IV—1

*Read the module objectives to the class.*

When we finish this module, you should be able to:

- Plan a lead-based paint maintenance job.
- Recognize an activity as either low risk or high risk.
- Choose appropriate materials and equipment for the job.
- Choose appropriate personal protective clothing and equipment for the job.

*Distribute and introduce the **Planning Tool**.*

## THE LEAD-BASED PAINT MAINTENANCE PLANNING TOOL

This **Planning Tool** is designed to help you learn the safe way to do jobs that involve lead-based paint. The **Planning Tool** is a set of instructions for minimizing the generation of lead dust and potential lead exposure when performing a variety of maintenance jobs. It is to be used in the field by all maintenance personnel.

When used properly, the **Planning Tool** can be as important as the other tools you carry in your toolbox. It will assist you in performing lead-based paint maintenance jobs effectively and safely. Its use can prevent loss of time decontaminating a dwelling unit due to improper procedures. Using it can also protect your health and help prevent lead poisoning of children residing in the dwelling unit or your own children.

### DISCUSSION



*Ask students to follow you through the pages of the **Planning Tool** as you briefly describe the use for each card.*

The lead job checklist, the series of guide cards, and the quality assurance checklist take you through the job from start to finish. The cards are used prior to starting a job, during the evaluation and planning stages, and all the way through to the end of the job. The appropriate cards/checklists can then serve as a job record when they are filled out for each job as it is completed.

The **Planning Tool** contains the following ten cards, each of which is discussed below:

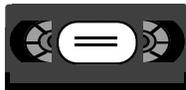
- **Lead Job Checklist**—6 questions to help identify lead activities, determine risk, and decide how the job should be done.
- **Materials Card**—disposables used for lead jobs
- **Equipment Card**—list of tools and equipment needed for lead jobs
- **Personal Protection Card**—clothing and equipment used for lead jobs
- **Work Practices Card**—how to work smart, wet, and clean
- **Prohibited and Unsafe Work Practices Cards**—what not to do
- **Cleanup Cards**—step-by-step procedures for low risk and high risk jobs
- **Carpet Removal Card**—steps for safe carpet removal
- **Decontamination Card**—decontamination practices
- **Quality Assurance**—questions to ensure the job has been done right

This afternoon we will learn to use this **Planning Tool** and follow proper procedures—work safe, work wet, and work clean. To help us do that, we will watch and discuss a series of videos. The narrator in these films is great. He teaches serious material, but keeps it light.

Two guys, Ben and Scott, are doing a huge high risk job repairing peeling paint in a whole room. Kirby, in contrast, does a low risk job patching a hole in an alcove over a bookcase. In the video, watch for:

- The decisions made on whether the job involves lead-based paint,
- The decisions made on whether the job is high or low risk,
- The differences in personal protection used by Ben and Scott doing high risk work and Kirby doing low risk work, and
- The different materials and equipment used for high and low risk jobs.

SHOW PLANNING VIDEO



*Have the students look at the Lead Job Checklist Card in their **Planning Tool**. Review with them the questions that are on the checklist. Point out that this checklist is primarily designed for the person responsible for scheduling jobs. If they think a task could involve lead they should ask if the checklist has been completed.*

There are six questions to ask prior to starting any maintenance job. They are normally answered by the supervisor, or a worker who has been through this training, and who has the authority to answer the questions and assign personnel to do the task. Every worker should be familiar with the contents and the intent of the checklist.

## LEAD JOB CHECKLIST

At the top of the page is a place to fill in the resident's name, phone number, address or apartment number, and the job number. This information will help you to inform the resident, and resident manager, and to coordinate this checklist with the general work order. In fact, the checklist should be attached to the work order. If it becomes separated, this identifying information will help you keep the record straight. Following completion of the work, the checklist becomes a permanent record of the lead safe precautions taken during the job.

### VIEWGRAPH IV—2

**LEAD JOB CHECKLIST**

**1. Was the building built before 1978?**      Yes    No

If you don't know when the building was built, treat the paint as lead-based paint. If the building was built **after** 1978, then lead-based paint is probably not present and **this is not a lead job**.

If the building was built **before** 1978, then treat the paint as lead-based paint, unless a paint inspection report says that no lead-based paint is present.

IV—2

### 1. Was the building built before 1978?

If you don't know when the building was built, treat any paint as lead-based paint. If the building was built on or after 1978, then lead-based paint is probably not present, and this is not a lead job.

If the building was built before 1978, then treat the paint as lead-based paint, unless a paint inspection report says that no lead-based paint is present.

### VIEWGRAPH IV—3

**LEAD JOB CHECKLIST**

**2. Could this job:**

create dust that may contain lead?	Yes	No
disturb known or suspected lead-based paint?	Yes	No
require cleanup of dust or debris that may contain lead?	Yes	No
disturb known or suspected lead contaminated soil?	Yes	No

IV—3

### 2. Could this job:

- create dust that may contain lead?
- disturb known or suspected lead-based paint?
- require cleanup of dust or debris that may contain lead?
- disturb known or suspected lead contaminated soil?

**VIEWGRAPH IV—4**

**LEAD JOB CHECKLIST**

3. If “Yes” to any of the above, or if you don’t know the answer to any of the questions, assume you are dealing with lead-based paint, and circle the level of risk below.

**Low Risk** = • Low levels of dust expected to be generated, and  
• surface and paint in good condition, and  
• less than two (2) square feet.

**High Risk** = • High levels of dust expected to be generated, or  
• surface and paint in poor condition, or  
• greater than two (2) square feet.



IV—4

3. If “Yes” to any of the above, or if you don’t know the answer to any of the questions, assume you are dealing with lead-based paint, and circle the level of risk below.

Remember that earlier, in the first module, we discussed some of the hazards associated with lead exposure. It’s now important to understand the levels of risk associated with various maintenance jobs that you may perform on lead-based painted surfaces. In general, the level of risk can vary greatly and is based upon how much lead dust is generated.

The risk associated with lead-based paint maintenance activities is generally referred to as low risk or high risk. The *HUD guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, 1995*, give more detailed guidance for low risk and for high risk.

**VIEWGRAPH IV—5**

**LEAD JOB CHECKLIST**

**Low Risk** = • Low levels of dust expected to be generated, and  
• Surface and paint in good condition, and  
• Less than two (2) square feet.

IV—5

**LOW RISK LEAD-BASED PAINT MAINTENANCE JOBS**

A “low risk” job is one in which:

- Minimal lead dust will be generated, and
- The coating (paint, varnish) and substrate (wood, plaster, drywall, metal, masonry) are in good condition, and
- Less than two square feet of surface area is involved.

Examples of typical low risk maintenance jobs include the following:

- Repairing window panes
- Repairing doors
- Replacing or repairing door locks
- Repairing radiator leaks
- Patching walls with small holes
- Grounds keeping
- Routine preparation for re-occupancy of vacant units if it doesn’t involve major repairs.

**VIEWGRAPH IV—6**

**LOW RISK MAINTENANCE JOBS**

- ✓ Repair window panes
- ✓ Repair doors
- ✓ Replace/repair door locks
- ✓ Repair radiator leaks
- ✓ Patch walls
- ✓ Routine vacancy preparation
- ✓ Grounds keeping

IV—6

**VIEWGRAPH IV—7**

**LOW RISK MANAGEMENT OF LEAD-BASED PAINT**

- ✓ Repairing rotted or defective surfaces
- ✓ Stabilizing paint
- ✓ Treating friction and impact surface treatment
- ✓ Treating bare soil
- ✓ Removing and controlling dust

IV—7

*Ask students to identify other low risk activities.*

Now let's talk about ways to manage lead-based painted surfaces.

Remember that management of lead-based paint is treatment to the painted surface to keep it from becoming a hazard.

Examples of low risk management of lead-based paint include the following:

- Repairing rotted or defective surfaces
- Stabilizing paint
- Treating friction and impact surfaces
- Treating bare soil
- Removing and controlling dust

**VIEWGRAPH IV—8**

**LEAD JOB CHECKLIST**

- High Risk** =
- High levels of dust expected to be generated, *or*
  - Surface and paint in poor condition, *or*
  - Greater than two (2) square feet.



IV—8

**HIGH RISK LEAD-BASED PAINT MAINTENANCE JOBS**

High risk maintenance jobs are jobs in which:

- Large amounts of lead dust will be generated, or
- The coating (paint, varnish) and substrate (wood, plaster, drywall, metal, masonry) are in poor condition, or
- The activity disturbs over 2 square feet of surface area.

The key to determining risk is primarily the amount of dust and debris that will be created.



**An area larger than two square feet can be handled with low risk if good work practices can control the dust.** With this training, good judgement, and common sense, you can determine the risk and use appropriate practices and precautions to control the risk during low risk and many high risk activities.

**Vacancy Preparation for Re-occupancy**

A good example of reducing risk is to handle lead-based paint problems during vacancy preparation for re-occupancy. Vacancy presents a great opportunity. It is easier to do maintenance work and address lead-based paint problems in a vacant unit, because access is limited and there are no concerns about contaminating occupants'

**VIEWGRAPH IV—9**

**LEAD JOB CHECKLIST**

**4. Who will do the job?** *Personnel must be properly trained and skilled. If they will have to wear a respirator, they must be medically qualified, fit-tested, and trained.*

Name \_\_\_\_\_ Name \_\_\_\_\_

IV—9

**VIEWGRAPH IV—10**

**SOURCES**

- ✓ HUD
- ✓ EPA
- ✓ OSHA
- ✓ NIBS
- ✓ State or local agencies

IV—10

belongings or exposing occupants during the work. This is the optimal time to stabilize the paint.

In your usual preparation, you remove debris and repair damage to walls, woodwork, and fixtures. This is the time to do a careful visual inspection for paint deterioration. Then follow the work practices and cleanup procedures you will learn today to protect yourself and the next occupants from lead exposures.

**WHAT LEAD-BASED PAINT MAINTENANCE JOBS ARE NOT COVERED IN THIS TRAINING PROGRAM?**

The following high risk maintenance jobs are beyond the scope of this training program:

- Replacing major building components
- Demolition
- Major renovation
- Fire restoration

**4. Who will do the job?**

Personnel must be trained, properly skilled for the activity, and medically qualified, fit-tested, and trained if they will have to wear a respirator.

**WHAT ADDITIONAL TRAINING IS REQUIRED FOR THESE JOBS?**

Large jobs where dust cannot be controlled and all other high risk maintenance jobs require additional training that include:

- Personal exposure monitoring,
- Respiratory protection, and
- Medical surveillance.

These topics are not covered in this training program.

There are several resources available that provide information on these and other topics pertinent to high risk work.

**U.S. Department of Housing and Urban Development—**The U.S. Housing and Urban Development's (HUD) *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing* is available from HUD User at 800-245-2691.

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**U.S. Environmental Protection Agency**—U.S. EPA has the following courses:

- Residential Lead-Based Paint Abatement Model Training Course (for workers)
- Lead Abatement Training for Supervisors and Contractors
- Lead Inspector Training: U.S. Environmental Protection Agency Model Training Course Curriculum
- Lead-Based Paint Risk Assessment Model Curriculum

**The Occupational Safety and Health Administration**—The Occupational Safety and Health Administration (OSHA) at 29 *CFR* 1910.1025 General Lead Industry Standard applies to maintenance activities that involve making or keeping a structure, fixture, or foundation in proper condition in a routine, scheduled, or anticipated fashion.

OSHA also has a Lead Construction Standard (29 *CFR* 1926.62).

These standards include employee health and safety information that is similar to that found in the HUD Guidelines.

**National Institute of Building Sciences**—The National Institutes of Building Sciences (NIBS) has developed the document *Operations & Maintenance Work Practices Manual for Homes and Buildings*, which includes specific procedures for high risk maintenance jobs and interim controls. This document is available by calling NIBS at 202-289-7800.

**State or Local Departments of Public Health or Departments of Labor**—Some states may require training for lead-based paint-related activities, including those activities performed by maintenance personnel. The state agency regulating training requirements, such as the Department of Public Health or Department of Labor should be contacted for state requirements.

*Explain to the class that there is a list of lead-based paint resources in their hand outs. Show them your copy of the list.*

**VIEWGRAPH IV—11**

**LEAD JOB CHECKLIST**

**5. How will residents be notified and affected?**

Notification: Phone \_\_\_\_\_ Letter \_\_\_\_\_ Time \_\_\_\_\_ Date \_\_\_\_\_

**Work area instructions to residents:**

Job scheduled: FROM: Time/Date \_\_\_\_\_ TO: Time/Date \_\_\_\_\_

Resident asked to leave unit: FROM: Time/Date \_\_\_\_\_ TO: Time/Date \_\_\_\_\_

Resident asked to move personal items? Yes No

**Temporary accommodation needed for resident?** Yes No

If "Yes", accommodation provided? Yes No

If "Yes", WHERE \_\_\_\_\_ PHONE # \_\_\_\_\_

IV—11

**5. How will residents be notified and affected?**

The information in this section tells the personnel assigned to the job that the residents have been notified of the job. Specifically, the trained individual will provide the following information:

- Date the notification was delivered to the residents
- Date the work will take place and the time required to complete the work
- Instructions to the residents for moving personal items out of the work area
- Resident protection requirements (if any), including location of temporary accommodations (as determined by the trained individual).

It is the responsibility of the person who has had this training to properly notify the residents of the upcoming work. This notification procedure can be the same as the notification procedure of any maintenance-related activities already established by the facility. However, it should be modified to include the information above.

**VIEWGRAPH IV—12**

**LEAD JOB CHECKLIST**

**6. How will work be performed to minimize exposure to lead?**

*Circle specific cards to use for this job:*

Materials Card	Cleanup Cards
Equipment Card	Carpet Removal Card
Personal Protection Card	Decontamination Card
Work Practices Card	Quality Control Card
Prohibited and Unsafe Practices	

IV—12

**6. How will work be performed to minimize exposure to lead?**

The supervisor or worker who has been trained will list the appropriate instruction cards that should be attached to the Job Checklist Card. On each instruction card you circle all items and work practices the worker will use to safely perform the work. Each of these instruction cards is discussed throughout the day.

Note that the checklist requires English reading proficiency to answer the questions and keep records. The remaining cards are designed for workers who may not read English well to learn to recognize symbols for the procedures.

## MATERIALS

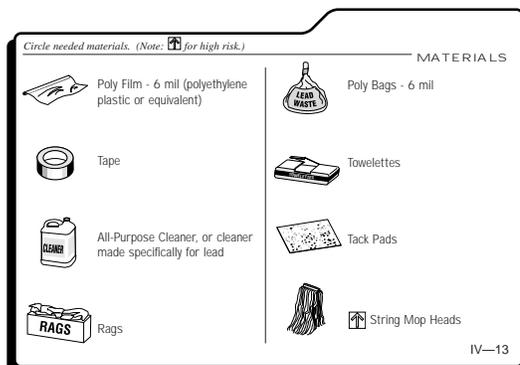
## EXERCISE



Have 3 piles of examples of all of the items on the materials, equipment, and personal protection cards in the front of the room. Hand out the items or ask students to pick them up as you discuss each card. Have the students refer to the Materials and Equipment Cards. Ask the students to explain the purpose of each item on the Materials and Equipment Cards.

One technique that works to involve everyone is to toss a foam rubber ball, a wadded paper ball, or other soft item to someone in the class. They explain the item they are holding and then toss the ball to the next person. (If they don't know the answer, they can just toss the ball on to someone else.) This technique gets everyone involved, includes some physical action that helps learning, and puts the responsibility of choosing the next responder on the class. Make sure all of the points below are covered by the class. Add anything they miss.

## VIEWGRAPH IV—13



These are the disposable items that are used up and thrown away after the job.

- ✓ **6 Mil Poly Film**—To cover the floor immediately under the surface to be addressed. Area covered will range from an area 5 feet by 5 feet to the whole floor. Poly is also used to cover furniture, windows, vents, and any area that can collect or transmit dust.
- ✓ **Tape**—To secure poly film and to seal the disposal bags. Duct tape works well and special blue masking tape is also easy on paint.
- ✓ **All Purpose Cleaner or Cleaner Made Specifically for Lead**—To clean both the surface that is being repaired and the floor. Use according to the manufacturer's instructions.
- ✓ **Rags**—To cleanup dust and debris.
- ✓ **6 Mil Poly Bags**—To hold all waste.
- ✓ **Towelettes**—To wash hands and face upon completion of the work. They can also be used to cleanup after very small jobs.

- ✓ **Tack Pads**—To collect dust in small or tight work areas. These are sticky sheets about 2 feet by 3 feet, that catch dust and are disposed of following the job.
- ✓  **Mop Heads**—To clean large floor areas on high risk jobs.

All materials listed on the Materials Card are disposable items that will be used and disposed of after the task is completed. Even if the material, like a mop head or rag, is still in good condition, it should be disposed of before leaving the job site to keep from contaminating the next residence. In a sequence of jobs with minimal cleanup, rags and mop heads may be thoroughly rinsed between jobs and disposed of at the end of the day.

**DISCUSSION**

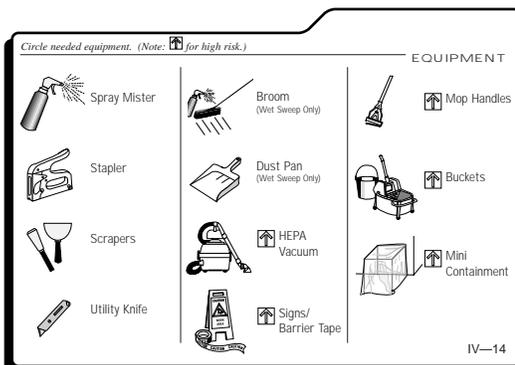


*Continue the tossing game so everyone in the class has an opportunity to discuss an item on the card until all items have been discussed.*

**EQUIPMENT**

All of the items on the equipment card may be used again as long as they have been properly cleaned after each job.

**VIEWGRAPH IV—14**



- ✓ **Spray Mister**—To mist work area to keep the dust down.
- ✓ **Stapler and Staples**—To secure polyethylene sheeting and signs/barrier tape. Staple about every six inches.
- ✓ **Scrapers**—To remove loose paint while misting.
- ✓ **Utility Knife**—To score the edges of painted hardware.
- ✓ **Broom**—For sweeping up moistened dust and debris.
- ✓ **Dust Pan**—For collecting and disposing of moistened debris.
- ✓  **HEPA Vacuum**—To pick up large amounts of lead dust on work surface, floor, and worker's clothing. Required for high risk work.

- ✓  **Signs/Barrier Tape**—To mark off the work area. Required for high risk activities.
- ✓  **Mop Handles**—To attach to mop heads to wet mop and rinse large areas.
- ✓  **Buckets**—To hold water, cleaner, and wringer buckets for the three bucket system used on high risk jobs.
- ✓  **Mini Containment**—To minimize the size of the work area for high risk activities.

## PERSONAL PROTECTION

### DISCUSSION



*Ask students to refer to their Personal Protection Card. Ask them to explain the purpose of each item on the Personal Protection Card. You may again use real items for the class to show and describe.*

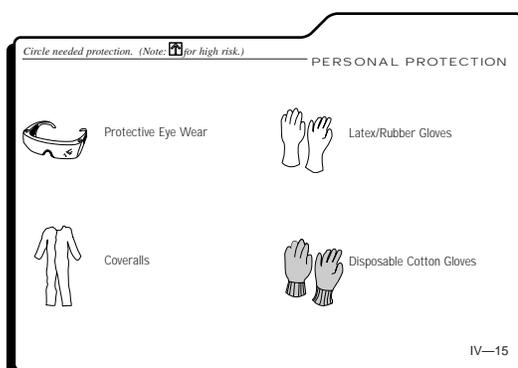
The supervisor will decide what personal protection is needed for the job and will circle the pictures and words on the card. The decision is based on the size and the location of the job, the amount of dust that may be generated, and the possible risk of lead exposure to the worker.

No personal protection may be needed on very small jobs if you use good work practices that minimize the dust. Then it is just common sense that the need for protection increases as the size and the extent of lead-based paint disturbance increases.

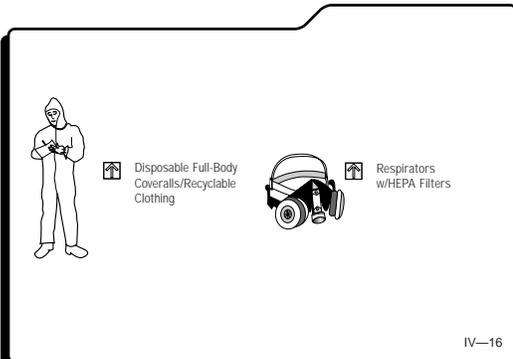
All personal protection icons that are circled on the personal protection card are needed for the maintenance job.

- ✓ **Protective Eye Wear**—To keep dust and debris out of your eyes.
- ✓ **Coveralls**—Disposable or recyclable protection for your clothes. Coveralls are generally recommended for low risk work, although some jobs are so small they are not needed. If you don't wear them, you should change into clean clothes before you go home.

### VIEWGRAPH IV—15



VIEWGRAPH IV—16



- √ **Latex/Rubber Gloves**—Protect your hands from strong cleaners, which can dry out and irritate your hands if used repeatedly over a long period of time.
- √ **Disposable Cotton Gloves**—Keep gross amounts of lead debris off your hands. (Gloves must be worn while doing high risk activities.) If gloves are not worn, extra care should be taken when you wash your hands to remove all lead dust from beneath your fingernails.
- √ **↑ Disposable Full-Body Coveralls/Recyclable Clothing**—Clothing required for high risk work when gross amounts of lead dust would adhere to your hair and street clothes, so that lead dust is not carried home.
- √ **↑ Respirators w/HEPA Filters**—Used to prevent inhaling airborne lead while doing high risk work that creates large amounts of dust. Workers using respiratory protection during high risk work must be trained, fitted, and have medical clearance.



## *Additional LBP Resources*

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### LEAD-BASED PAINT MAINTENANCE

*There are a number of useful documents that can provide additional technical information regarding LBP and LBP activities. These materials are listed by source.*

### HUD DOCUMENTS

*Copies of these documents can be purchased from HUD USER at 1-800-245-2691 and from HUD User's website at <http://www.hud.gov/lea/leahome.html>. You may also check the HUD website at <http://www.huduser.org>.*

- *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (July 1995) [HUD 7600]*
- *Comprehensive and Workable Plan for the Abatement of Lead-based Paint in Privately-Owned Housing: A Report to Congress (September 1991) [HUD-PDR-1295 (1)]*
- *Putting the Pieces Together: Controlling Lead Hazards in the Nation's Housing. Recommendation. the National Lead-Based Paint Hazards Reduction and Financing Task Force (July 1995) [HUD-1547-LBP]*

### TRAINING COURSES

*Copies of these courses are available from HUD USER at 1-800-245-2691.*

- *Lead Inspector Training: U.S. Environmental Protection Agency Model Training Course Curriculum [Instructor's Manual AVI 6140; Student Manual AVI 6141]*
- *Lead-Based Paint Risk Assessment Model Curriculum [AVI 6700]*
- *Residential Lead-Based Paint Abatement Model Training Course [AVI 6501] (for workers)*
- *Lead Abatement Training for Supervisors and Contractors [AVI 6059]*



## **EPA**

*Copies of the following documents are available from the National Lead Information Center Clearinghouse at 1-800-424-LEAD. More information on lead can be found on EPA's lead information website at <http://www.epa.gov/opptintr/lead>.*

- *“Protect Your Family from Lead in Your Home” Pamphlet (May 1995) [EPA-747-K-94-001]*
- *“Reducing Lead Hazards When Remodeling Your Home” Pamphlet [EPA 747-R-94-002]*

## **NATIONAL INSTITUTE OF BUILDING SCIENCES (NIBS)**

*Copies of these documents are available from NIBS at 202-289-7800.*

- *Lead-Based Paint: Operations and Maintenance Work Practices Manual for Homes and Buildings (May 1995)*
- *Guide Specifications for Reducing LBP Hazards (May 1995)*

## **ALLIANCE TO END CHILDHOOD LEAD POISONING**

*A list of available materials may be obtained from the Alliance at 202-543-1147.*

## **NATIONAL LEAD INFORMATION CENTER CLEARINGHOUSE**

*For a list of available materials call the Clearinghouse at 1-800-424-LEAD.*

## **CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC)**

*Copies of this document are available from HUD USER at 1-800-245-2691.*

- *“Preventing Lead Poisoning in Young Children.” (October 1991) [HUD 5948]*



# Module V

# Doing the Job

MODULE TIME: 165 MINUTES

## VIEWGRAPH V—1

### MOD V— DOING THE JOB



#### Learning Objectives

- ✓ Explain safe work practices
- ✓ Use cleanup procedures
- ✓ Use steps to remove carpet
- ✓ Explain decontamination
- ✓ Complete a quality assurance check
- ✓ Plan jobs using the **Planning Tool**

V—1

When we complete this training module, you should be able to:

- Explain safe work practices: Work Smart, Work Wet, Work Clean.
- Use cleanup procedures for low risk and high risk jobs.
- Use steps to remove carpet.
- Explain decontamination of self and equipment.
- Complete a quality assurance checklist.
- Plan low and high risk jobs using the **Planning Tool**.

Time: 30 minutes

## WORK PRACTICES FOR PREPARATION

### SHOW PREPARATION VIDEO 4



Video segment 4 discusses the preparation steps before starting a lead hazards task. It shows how to work smart.

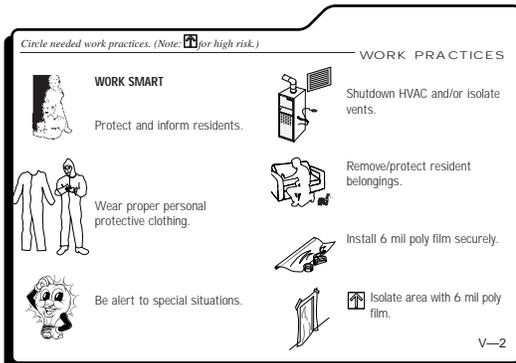
### DISCUSSION



*Have the students refer to the first Work Practices Card. You may use some of the following questions as you go through the first card. Ask students to talk about issues raised in the video. Make sure that everyone understands the reasons for the activities on the work practices card.*

All work practices that are circled must be done for each maintenance job, beginning with the first item circled and reading down to the last circled item.

**VIEWGRAPH V—2**



**WORK SMART**

Working smart means keeping your eyes open, using all the required materials and equipment correctly, and following the safe work practices in the **Planning Tool**.

√ **Protect and Inform Residents-**

- Keep residents out of the work area
- Minimize dust
- Clean up thoroughly

**Q:** Why should you wear Protective Clothing?

**Q:** Has anyone ever suited up for a high risk job like the one shown in the video?

**Q:** Who at your workplace is qualified to wear a respirator?

**Q:** What are the requirements for being qualified to wear a respirator?

**A:** Training on use and care of the respirator and medical approval and fit-testing to wear a respirator.

√ **Be Alert to Special Situations**

Be on the lookout for problems that could contribute to potential lead exposure.

**Q:** What are some examples of special situations?

- A:**
1. Start a small job, and find that the substrate is in poor condition and more dust will be involved.
  2. Fix a fixture and find deterioration of the wall behind it.
  3. Children appear while you are working.

√ **HVAC Shutdown and/or Isolate Vents with Poly where vents can be contaminated**

Shut off the forced air HVAC system and/or seal the vents within the work area with 6 mil poly film and tape. On a very small job, where you can control the dust with safe work practices, you may not need to worry about the HVAC. Where some dust will be created, shut down the HVAC. On large jobs, shut it down and seal the vents.

---

**Q:** Why is it important to shut off the forced air HVAC?

**A:** To keep from spreading the dust to other rooms where it will settle and will need to be cleaned up to protect children in the residence.

**Q:** What are your reactions to the amount of dust it takes to create a lead hazard (refer to the packet of sweetener in video)?

**Q:** Are there any other tips that you have on securing the poly film?

**Q:** Has anyone in the class ever installed a poly barrier?

√ **Remove/Protect Resident Belongings**

For low risk work, move all furniture, toys, and other items out of the immediate work area. For high risk work, furniture, toys, and other objects should be either moved to another room or covered with 6 mil poly film.

**Q:** How do you handle situations when the residents haven't removed their belongings?

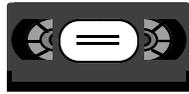
√ **Securely Install Poly Film “Drop Cloth”**

For low risk work, lay a piece of poly film on the floor, immediately under the area to be addressed. The poly film should be at least 5 feet by 5 feet and extend beyond the work area. If the low risk work is to be done on the ceiling, then the entire floor must be covered with the poly film.

Secure poly film with tape or staples to the floor so they will not damage the surfaces. If the work area will create dust across the room, secure poly over the entire floor.

For very dusty high risk work, the poly film should cover the entire floor of the room and the entryway should be covered with poly film. You may make a Z-fold partition to keep dust from going through the opening. Hang one sheet of poly over the entrance way. Secure the top and one side with tape or staples. On the other side of the entrance, seal the top and the opposite side. You can then walk through without letting dust out of the room.

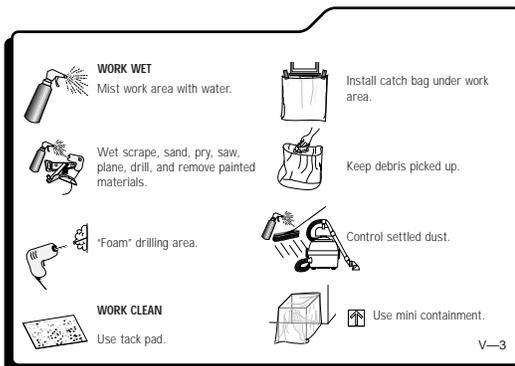
SHOW PERFORMING THE TASK VIDEO 5



WORK PRACTICES WHILE PERFORMING THE TASK

This video discusses ways to perform the task safely. The video will cover the second Work Practices Card—Work Wet and Work Clean.

VIEWGRAPH V—3



*Refer students to the second work practices card. Make sure each student is able to follow the icons and understand the activity.*

WORK WET

To work wet means to constantly keep the surface damp by lightly misting the area with water. Misting is used for both low risk and high risk work. Keeping the area wet minimizes airborne lead dust that can be inhaled, could settle on skin or clothing, or could get tracked to other areas of a dwelling.

✓ **Mist Work Area with Water**

Mist the area to be addressed with a spray mister containing water. The size and kind of sprayer depends on the size of the area to be repaired. **This is not to be done on any surface in proximity to electrical outlets and switches.** Instead, you can wet a sponge or rag and carefully apply to the surface. Don't use too much water so that it drips. It should only be damp enough to hold the dust, but not run onto the floor.



✓ **Wet Scrape, Sand, Pry, Saw, Plane, Drill, and Remove Plaster/Drywall**

Mist the area prior to and during these activities to keep down dust.

✓ **Foam Work Area**

Spray a small amount of shaving cream on the area to be drilled. The dust will stick to the shaving cream so you can wipe it off the surface and drill.

## DISCUSSION



*Ask students if they have used any of these practices. Discuss successes and difficulties. Ask them to suggest other ways to work wet.*

**WORK CLEAN**

To work clean means to perform the work in such a manner as to generate as little dust and debris as possible, and to keep all dust and debris inside the work area. To accomplish this the following are done:

√ **Use Tack Pad**

Tack pads are especially useful to collect dust in very small areas. The dust adheres to the pad so cleanup is easier. It does not work well if it gets wet.

√ **Install Catch Bag Under Work Area**

A neat trick is to secure a 6 mil poly disposal bag directly underneath the area to be repaired, especially under a window. The bag will catch debris that is generated by drilling or cutting, as well as paint chips generated during paint stabilization.

√  **Use Mini Containment (high risk)**

For a dusty high risk job, a mini containment system may help to contain dust while work is done. It is especially useful in high traffic areas, and to eliminate laying poly over a large clean area.

√ **Keep Debris Picked Up**

It keeps you from tracking and spreading the lead dust and makes cleanup easier.

√ **Control Settled Lead Dust**

For low risk jobs, you may mist the debris to control the dust and sweep it up with a broom and dust pan. For high risk work, pick up lead dust with the HEPA vacuum. You may prefer to use a HEPA vac on all jobs, if one is available.

DISCUSSION

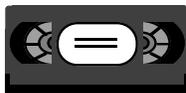


Ask students to give additional examples or tips on how they work clean.

Time: 30 minutes

CLEANUP

SHOW CLEANUP VIDEO 6



The next video discusses procedures for cleanup and decontaminating yourself and equipment after a lead-based paint maintenance task. The video will cover the following cards from the **Planning Tool**: Cleanup, Decontamination, and Quality Assurance. Look for differences in cleanup for low risk and high risk jobs.

The cleanup cards outline the steps to properly clean up after performing a lead task. The steps are numbered to follow in sequence, starting from the top and continuing downward to the last item.

While there is some concern of lead exposure to yourself during the cleanup of the work area, the main concern is for the residents. If the cleanup is incomplete or inadequate, any remaining lead dust or debris puts the residents at risk of lead exposure long after the job is completed.

Although there are many steps to the cleanup process, you can remember them by grouping them into a four part system:

1. Bag all the debris and disposables you used.
2. Take care of your tools (clean or bag to clean later).
3. Clean the work surfaces and floor in the work area.
4. Seal, label, and dispose of all debris.

Overall, the process is the same, whether the job is low risk or high risk. The larger and higher risk the job, the more cleanup and precautions you will use.

The **Planning Tool** has two separate cleanup cards:

- One for small low risk jobs, and
- One for larger high risk jobs that require additional steps and equipment.

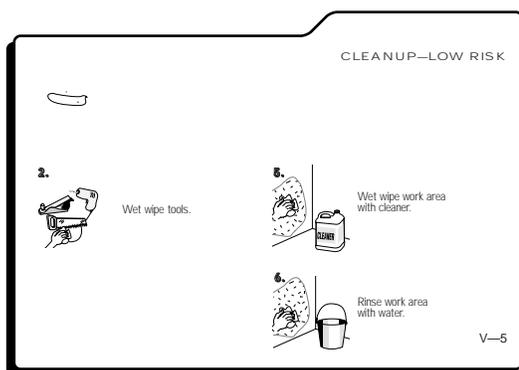
VIEWGRAPH V—4

CLEANUP SYSTEM

1. Bag debris and disposables
2. Clean or bag tools
3. Clean work surfaces and floor
4. Seal, label, and dispose of debris

v-4

*Go through the activities on the low risk card. Point out that for a simple job there may only be a few tasks circled, e.g., wet wipe, rinse, place debris in poly bag, and dispose of properly. More will be circled for more complex tasks. Read through the steps and answer questions students may have.*



### Cleanup—Low Risk

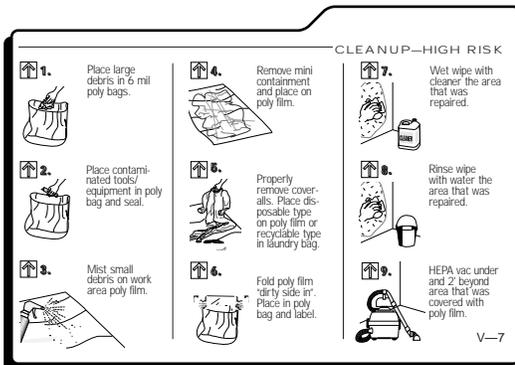
1. Place large debris in 6 mil or other heavy poly bags. Do not fill more than 1/2 to 2/3 full.
2. Wet wipe tools.
3. Mist debris on work area poly film.
4. Fold poly film "dirty side in." Place in poly bag and label.
5. Wet wipe work area with cleaner using manufacturer's directions.
6. Rinse work area with water—This is to remove any cleaner residue that holds the lead dust.
7. Wet wipe with cleaner under and 2 feet beyond the area that was covered with poly film.
8. Rinse wipe with water under and 2 feet beyond the area that was covered with poly film.
9. Gooseneck seal and label 6 mil poly bag.
10. Remove all materials, tools, and bagged debris from work area and residence.
11. Properly dispose of bagged debris.

You may have questions about disposal of lead waste. Your state environmental agency can answer specific questions on lead waste disposal. Call the National Lead Information Center (1-800-424-LEAD) for the telephone number for your state agency. Regardless of whether lead waste is considered hazardous, you don't want children, pets, and scavengers to get into it. It is best to bag, label, and secure it until the lead containing materials are removed from the property.

**EXERCISE**

*Divide the class into groups. In each group, have each student take a turn going through the steps for low risk cleanup using the equipment, while the others coach.*

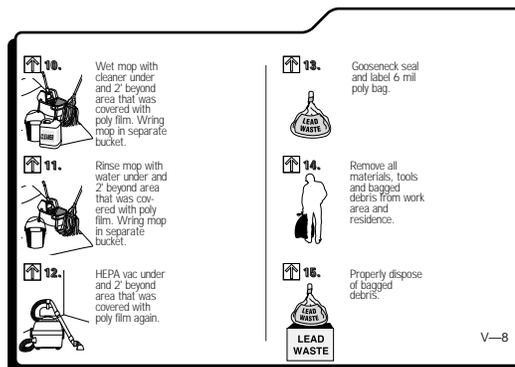
**VIEWGRAPH V—7**



**Cleanup—High Risk**

1. Place large debris in 6 mil poly bags.
2. Place contaminated tools/equipment in poly bag and seal.
3. Mist small debris on work area poly film.
4. Remove mini containment and place on poly film.
5. Properly remove coveralls. Place disposable type on poly film or recyclable type in laundry bag.
6. Fold poly film "dirty side in." Place in poly bag and label.
7. Wet wipe with cleaner the area that was repaired.
8. Rinse wipe with water the area that was repaired.
9. HEPA vac under and 2 feet beyond area that was covered with poly film.
10. Wet mop with cleaner under and 2 feet beyond the area that was covered with poly film. Wring out the mop in a separate bucket.
11. Rinse mop with water under and 2 feet beyond area that was covered with poly film. Wring out the mop in a separate bucket.
12. HEPA vac under and 2 feet beyond area that was covered with poly film again.
13. Gooseneck seal and label 6 mil poly bag. Be sure it is not more than 1/2 full, to leave room for gooseneck and seal.
14. Remove all materials, tools, and bagged debris from work area and residence.
15. Properly dispose of bagged debris.

**VIEWGRAPH V—8**



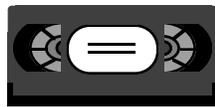
**EXERCISE**

*Divide into the same groups to practice going through the 15 steps in high risk cleanup like you did for the low risk job.*

**Time: 20 minutes**

**REMOVING CARPETING**

**SHOW CARPET REMOVAL VIDEO 7**



**VIEWGRAPH V—9**

*Circle needed work practices.*

**CARPET REMOVAL**

CARPET	PAD
<p>1. Mist carpet.</p>	<p>6. Cut padding to manageable portions with utility knife.</p>
<p>2. Loosen wall to wall carpet from tack strips or glued areas.</p>	<p>4. Roll pad while misting.</p>
<p>3. Cut carpet to manageable portions with utility knife. (about every 6 feet)</p>	<p>7. Wrap carpet &amp; padding in 6 mil poly, seal with tape, and remove from area.</p>
<p>4. Roll carpet "pile side in" while misting carpet backing.</p>	

V—9

Vacancy preparation for occupancy turnover often requires removal of old carpet. Your employer may choose to have a wipe test done to determine the presence and level of dust before you remove the carpet. The next video shows how to do a wipe test and shows Ben and Scott removing carpet. Carpet removal presents some special problems which can create extreme hazards if not handled properly. Carpet collects and holds lead dust created inside the dwelling and lead dust that is tracked in from lead-contaminated soil. Removing the carpet involves a large area in which dust can often be controlled by good work practices. If it is very old and worn, you should treat it as a high risk job unless testing shows lead levels to be low. Of course, removing carpet due to water damage is low risk when the carpet is soaked.

*Review the Carpet Removal Card with the class.*

**VIEWGRAPH V—10**

**FLOOR**

<p>8. HEPA vac floor area.</p>	<p>10. Rinse mop floor area and baseboards.</p>
<p>9. Wet mop floor area, and baseboards with cleaner.</p>	<p>11. HEPA vac floor area again.</p>

V—10

**Carpet**

1. Mist carpet.
2. Loosen wall to wall carpet from strips or glued areas.
3. Cut carpet into manageable portions with utility knife (about every 6 feet).
4. Roll carpet "pile side in" while misting carpet backing.

**Pad**

5. Cut pad to manageable portions with utility knife.
6. Roll pad while misting.
7. Wrap carpet and padding in 6 mil poly sheeting, or place in a 6 mil poly bag, gooseneck seal with tape, and remove from the area.

**Floor**

8. HEPA vacuum the floor area.
9. Wet mop the floor area and with all purpose cleaner or a cleaner made specifically for lead.
10. Rinse mop the floor area and baseboards.
11. HEPA vacuum floor area again.

**DISCUSSION**



*Ask who in the class has removed carpet. Ask what they would now do differently to remove carpet that is contaminated with lead-based paint. What would they do differently from the way they removed carpet in the past.*

**EXERCISE**

*Review the eleven steps by asking eleven students to role play each of the eleven steps. Assign each student a step. Line up the students and have each describe and show their step.*

**Time: 15 minutes**

**DECONTAMINATION**

*Have the students refer to the Decontamination Card.*

Decontamination is performed after all the cleanup activities are completed.

**Personal decontamination** ensures that any lead dust on the face, body, and clothes is removed. This mini-

mizes the risk of inadvertently ingesting lead while eating, drinking, or smoking; carrying lead dust to other parts of the dwelling unit; or taking the lead into your car or home.

**Equipment decontamination** ensures that any lead dust on equipment is thoroughly removed. This prevents contamination of other areas the next time you use the equipment.

The steps for decontamination are fairly simple. Again, follow items that are circled by your supervisor on your Decontamination Card.

**DISCUSSION**



*Ask the students to explain the purpose of each item on the Decontamination Card.*

**Personal**

✓ **Dry Decontamination**

HEPA vacuum clothing to remove dust before leaving the site if you do not wear protective clothing. You may also dry decontaminate between jobs if you wear protective clothing from one job to another.

✓ **Wipe Hands and Face with Towelettes**

Do a quick wash-up before leaving the job. Place the used towelettes in the disposal bag. Seal the disposal bag with tape.

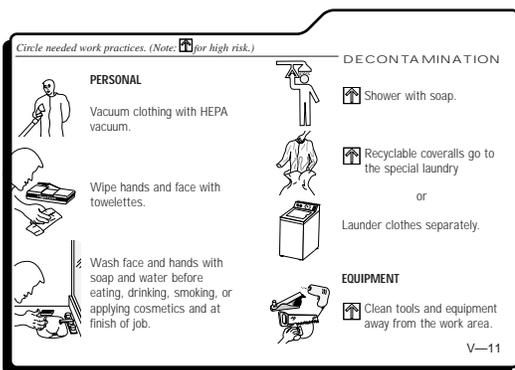
✓ **Wash Hands and Face with Soap and Water**

Wash before eating, smoking, drinking or applying cosmetics, and at the finish of the job. If gloves are not worn, be sure to clean well under your fingernails.

✓ **Shower**

Shower on the job if feasible. It is necessary to shower after high risk jobs and recommended following low risk work. If a shower is not available at work, a portable shower may be set up and used.

**VIEWGRAPH V—11**



√ **Launder Personal Clothes/Coveralls Separately.**

Changing before leaving the work site is highly recommended. If the employer supplies recyclable coveralls, they are sent by the employer to a special laundry facility. The laundry must be informed that the clothes have been exposed to lead.

**Equipment**

√ **Clean All Tools:**

- For low risk jobs, clean tools by wiping them off with towelettes or rags at the site.
- For high risk jobs, tools may need to be cleaned at the shop after the job.

**DISCUSSION**



*Ask students if they have any questions on the course so far.*

**Time: 10 minutes**

**QUALITY ASSURANCE**

**VIEWGRAPH V—12**

*Have the students refer to the Quality Assurance Card.*

QUALITY ASSURANCE			
<b>Did you do your part to inform and protect everyone from lead poisoning?</b>			
Work properly completed as requested	Yes	No	N/A*
Work areas cleaned properly	Yes	No	N/A
Contaminated debris properly bagged, sealed and labeled	Yes	No	N/A
Contaminated debris, tools, materials, and equipment removed from residence	Yes	No	N/A
Resident's belongings returned to original place	Yes	No	N/A
Resident notified of job completion	Yes	No	N/A
Other lead "problems" noted	Yes	No	N/A
If "Yes", other lead problems reported	Yes	No	N/A
Signature _____	Date/Time _____		
Unit/Address _____	V—12		
<small>*N/A means not applicable.</small>			

Quality assurance is the last step of the maintenance job. It is a final check performed by the maintenance person or supervisor to see that the job was performed correctly and that the work area has been sufficiently cleaned. This check is done using the Quality Assurance Card.

The Quality Assurance Card consists of statements that are read during inspection of the corresponding condition of the work and work area.

- √ Work properly completed as requested
- √ Work areas cleaned properly
- √ Contaminated debris properly bagged, sealed and labeled
- √ Contaminated debris, tools, materials, and equipment removed from residence

- √ Resident's belongings returned to original place
- √ Resident notified of job completion
- √ Other "lead problems" noted
- √ If yes, other lead problems reported

You may choose to do an optional dust wipe test. This is one way of determining proper cleanup and that the amount of remaining lead dust is acceptable. Chapter 15 of the HUD guidelines gives more details.

If the quality assurance check shows that the condition is unsatisfactory, it must be corrected. It is important to do the job right the first time. Correcting a condition may require you or another maintenance person to prepare the work area again, wear protective clothing, and/or repeat all cleanup and decontamination procedures.

When the condition is found to be satisfactory, the maintenance person or supervisor checks off the space next to the statement. This procedure is repeated for each statement. A copy of the checklist may be kept with the work order as a permanent record of the precautions taken on the job.

## DISCUSSION



*Ask the class to give examples of experiences where work was done improperly and what had to be done to correct it.*

Time: 60 minutes    IMPLEMENTATION EXERCISES

*The purpose of this section is to give the class the opportunity to work with the **Planning Tool** and to integrate the learning into the way they do their jobs.*

*Students practice using the **Planning Tool** to make sure that they understand what is needed to safely perform lead-based paint maintenance jobs.*

*Copy the exercise sheets on the broken hinge and paint stabilization jobs, and distribute them to the students prior to each exercise.*

*Upon completion of this section, maintenance personnel should be able to:*

- *Use the **Planning Tool** to plan low risk and high risk lead-based paint maintenance jobs.*

In this section, we will plan the following activities:

- Repairing a door hinge
- Stabilizing a large area of peeling and chipping paint

**EXERCISE****VIEWGRAPH V—13****DOOR REPAIR****Task:**

Replace a broken hinge on a bedroom door in a building built in 1950.

V—13

**REPAIRING A DOOR**

**TASK:** Replace a broken hinge on a bedroom door in a building built in 1950.

*Tell the class that they will play the supervisor in the exercise. They will make decisions, complete the Lead Job Checklist, and circle the items and activities that need to be used to do this job safely.*

*Have the class divide into small groups and answer the questions on the exercise sheets (provided in the hand-out package). Have each group choose a recorder and a spokesperson. Give them 20 minutes to complete the exercise. The groups may make notes on the exercise sheets and/or use grease pens to circle items on their planning tools. Encourage the groups to be creative to plan the work safely and efficiently. Then ask the spokespersons to answer the questions and explain their answers. Allow about 10 minutes for groups to report and discuss their choices. What information do the residents have about this job?*

**EXERCISE****VIEWGRAPH V—14****STABILIZING PAINT****Task:**

Repair a 3 foot hole and stabilize the loose, peeling, and chipping paint on a 10 square foot area of kitchen ceiling in an apartment in a building built in 1940.

V—14

**STABILIZING PAINT**

**TASK:** Repair a 3 foot hole and stabilize the loose, peeling, and chipping paint on a 10 square foot area of kitchen ceiling in an apartment in a building built in 1940.

*Repeat the exercise. This time the task is to repair a large hole in a deteriorating ceiling.*



## Exercise

### INSTRUCTOR'S ANSWERS:

*The groups may get creative and should be allowed to use any methods that will contain the hazard while performing the job.*

### REPAIRING A DOOR

**TASK: Replace a broken hinge on a bedroom door in a building built in 1950.**

You will be given a job scenario. As a group, complete the checklist and then answer the following questions.

**1. Is this a lead job?**

*Yes, because the building was built before 1978, unless paint testing confirms that no lead-based paint is present.*

**2. Is this a high risk or low risk activity?**

*Low risk*

**3. How many persons are needed for this job? Who can do the work?**

*One general maintenance mechanic who has been trained to work safely with lead-based paint through this course or an equivalent.*

**4. What materials (consumables) will you need? (Circle the proper icons on the Materials Card.)**

*6 mil poly film and bags*

*Tape*

*Cleaner*

*Rags*

*Mop heads*

**5. What equipment will you need? (Circle the proper icons on the Equipment Card.)**

*Spray mister*

*Utility knife*

*Scraper*



## Exercise

6. What personal protection will you need? (Circle the proper icons on the Personal Protection Cards.)

*Protective eye wear*

*Cotton or latex gloves are optional*

7. What work practices should you use to do this job? (Circle the proper icons on the Work Practices cards.)

*Protect and inform residents.*

*Be alert to special situations.*

*Install poly film, catch bag, or use tack pad.*

*Mist work area.*

*Wet pry hinge.*

*Keep debris picked up.*

*Control settled dust.*

8. Which procedures should you follow for the cleanup? (Circle the proper icons on the Cleanup Card.)

*Follow the low risk cleanup card. Note that using a catch bag or tack pad eliminates the need to spray and fold up the poly film.*

9. Who is responsible for completing the Quality Assurance Card?

*A supervisor or worker who has been trained to use the checklist.*



## Exercise

### INSTRUCTOR'S ANSWERS:

*Students may suggest creative ways to handle the repair. Acknowledge any method that reduces lead dust generation and follows logical planning steps. For example, if the group chooses to encapsulate the ceiling with wall board, there will be less debris and risk than the typical cut and patch method.*

### STABILIZING PAINT

**TASK:** Repair a 3 foot hole and stabilize the loose, peeling, and chipping paint on a 10 square foot area of kitchen ceiling in an apartment in a building built in 1940.

You will be given a job scenario. As a group, complete the checklist and then answer the following questions.

**1. Is this a lead job?**

*Yes. The building was constructed prior to 1978, so assume presence of lead-based paint, unless paint testing confirms the absence of lead-based paint.*

**2. Is this a high risk or low risk activity?**

*The job is typically high risk because of the size and location of the damage.*

**3. How many persons are needed for this job? Who can do the work?**

*Two general maintenance mechanics who have been trained on lead-based paint operations and maintenance. If good work practices are used and exposures are low, you may not require the use of respirators, and, thus, respirator training. Usually respirators will be needed for this type of job.*

**4. What materials (consumables) will you need?**  
(Circle the proper icons on the Materials Card.)

<i>6 mil poly film and bags</i>	<i>Rags</i>
<i>Tape</i>	<i>Mop heads</i>
<i>Cleaner</i>	

**5. What equipment will you need?** (Circle the proper icons on the Equipment Card.)

<i>Spray mister</i>	<i>HEPA vacuum</i>
<i>Scraper</i>	<i>Signs/barrier tape</i>
<i>Utility knife</i>	<i>Buckets</i>
<i>Broom</i>	<i>Mop handles</i>
<i>Dustpan</i>	



## Exercise

6. What personal protection will you need? (Circle the proper icons on the Personal Protection Cards.)

*Protective eye wear*

*Cotton or latex gloves are optional*

*Full body coverall*

*Respirator (depending on exposure levels)*

7. What work practices should you use to do this job? (Circle the proper icons on the Work Practices Cards.)

### **Work Smart**

*Protect and inform residents.*

*Be alert to special situations.*

*Shut down HVAC in area.*

*Install poly film, catch bag, or use tack pad.*

*Isolate work area “Z-fold partition.”*

### **Work Wet**

*Mist work area.*

*Wet scrape, sand, etc.*

### **Work Clean**

*Pick up debris.*

*Control settled dust.*

8. Which procedures should you follow for the cleanup? (Circle the proper icons on the Cleanup Card.)

*Follow high risk cleanup, probably including wiping down the entire kitchen area if dust is noted throughout.*

9. Who is responsible for completing the Quality Assurance Card?

*The supervisor, because it is a high risk job (potentially large amounts of dust may be generated or exist from the damaged ceiling.) The large ceiling area may distribute dust/debris over the entire kitchen. It is an area where people eat and children play, therefore a quality job is very important and should be verified by the supervisor.*



## Module VI

# Your Lead Maintenance Program

MODULE TIME: 45 MINUTES

Time: 15 minutes

## INTEGRATING LEAD-BASED PAINT MAINTENANCE INTO YOUR EXISTING MAINTENANCE PROGRAM

### VIEWGRAPH VI—1

MOD VI—YOUR LEAD MAINTENANCE PROGRAM

**Learning Objectives**

- 🔗 Management's role
- 🔗 Communication with residents
- 🔗 Integrating safe practices

VI—1

*Review the learning objectives for this module with the class.*

Upon completion of this module, you should be able to:

- Explain management's role in the Lead Maintenance Program.
- Explain the importance of ongoing communication with residents.
- Recognize procedures that you currently use that need to be modified to assure safe work practices are followed for lead-based paint work back on the job.

*This module gives workers and supervisors a brief overview of management's responsibility for lead-based paint maintenance. Cover this module with as much detail as necessary for the participants. Supervisors need more detail than workers.*

### VIEWGRAPH VI—2

LEAD MAINTENANCE PROGRAM

- 🔗 Identification of lead-based paint
- 🔗 Identification of low risk and high risk work
- 🔗 Training of maintenance personnel
- 🔗 Modification of work order forms
- 🔗 Education of residents
- 🔗 Designation of persons in charge
- 🔗 Quality assurance/quality control

VI—2

## WHAT IS A WRITTEN LEAD MAINTENANCE PROGRAM?

Your company should have a written lead maintenance program. It documents all steps necessary to minimize the risk of lead exposure when work is performed on lead-based painted surfaces, from purchasing the appropriate equipment to documenting the procedures to be used for each lead-based paint hazard activity.

The written lead maintenance program consists of the following seven elements:

- Identification of lead-based painted surfaces
- Identification of low risk and high risk work
- Training of maintenance personnel
- Modification of work order forms and systems
- Education of residents
- Designations of persons in charge of lead work
- Methods for conducting quality assurance and quality control. (Dust testing is optional after high risk jobs.)

However, a plan is only as good as the people implementing it. You, the maintenance staff, most directly influence potential lead exposure because you work directly with lead-based painted surfaces on both the interior and exterior of the dwelling unit. When working on lead-based painted surfaces, you must follow the work practices described in this training in order to decrease the risk of lead exposure to the residents of the dwelling unit, yourself, and your family.

### HOW IS THE WRITTEN LEAD MAINTENANCE PLAN IMPLEMENTED?

The plan is implemented by everyone who is involved in working with lead-based paint. Looking at the elements of a written lead maintenance plan and who is responsible for implementing them is a good way to summarize this training.

#### DISCUSSION



*Ask students to discuss how lead jobs are handled at their work. Involve the students to prepare them to return to their jobs and apply what they have learned in the course.*

- Who do you contact if equipment is needed?
- What changes are needed (if any) in your work orders?
- Who informs contractors about lead-based paint hazards?
- How is information passed to residents and other workers?

### Identification of Lead-Based Paint Surfaces

It makes your job easier to know where the lead-based paint is. So, testing painted surfaces is the best approach, but may not be the most feasible. If testing cannot be done due to time and/or financial constraints, or if previous testing was found to be deficient, an alternative approach is to simply assume any painted surface constructed prior to 1978 contains lead-based paint.

### Identification of Low and High Risk Work

Prior to assigning tasks, management must determine if a task will be low or high risk. The **Planning Tool** Lead Job Checklist or other similar form will indicate the level of risk, who should perform the task, what equipment and materials are needed, how residents have been notified, and the work practices to be followed.

Remember, the factors that are used to determine the level of risk are the amount of dust that could be generated, the size of the job, and the condition of the surface or paint. If these conditions change at any time during a job, like a small hole in a ceiling becomes larger, you must notify management.

### Worker Training

The written lead maintenance program should describe the steps followed when doing lead-based paint work, who will do the work, and how they will be trained.

The **Planning Tool** can be used to list lead-based paint tasks and the steps to be followed. This training program provides what the worker needs to know for most paint maintenance activities. Depending upon the task, workers may need to have additional training on hazard communication, respiratory protection, exposure monitoring, medical surveillance, and other pertinent topics.

Contractors need to be trained and informed of areas with lead-based paint.

### Modification of Work Order Forms and System

This course and the **Lead-Based Paint Maintenance Planning Tool** provide a system to address lead-based paint hazards to assign and document safe work practices as part of usual work orders.

### Education of Residents

The resident's first introduction to lead-based paint maintenance jobs will most likely be the resident notification form. The resident notification should be written so that the resident can understand it.

Keep it to one page and consider the reading level and language spoken and read by the residents.

It should tell the resident:

- the nature of work,
- length of work,
- date and time work is to take place,
- precautions to protect residents and their belongings,
- temporary relocation requirements (if any),
- brief description of work, and
- methods for keeping children out of the work area.

The Lead Job Checklist in the **Planning Tool** provides this information. Because you have completed this course, you can tell residents about the protective clothing, equipment, and procedures you use. If residents have questions regarding medical, legal, or other information, refer them to the appropriate facility representative. Such ongoing communication is very important to give residents a greater understanding about minimizing lead exposure and to ensure that they are less likely to over react.

Increasingly, residents will be familiar with the "Protect Your Family From Lead in Your Home" brochure, as new residents will receive the brochure when they rent the apartment.

### **Designation of Persons in Charge of Lead Work**

The **Lead-Based Paint Maintenance Planning Tool Lead Job Checklist** guides the supervisor to assign properly trained personnel to perform maintenance that may disturb lead-based paint.

### **Quality Assurance and Quality Control**

The **Planning Tool** provides a checklist to follow and file with the work order to document that the job was performed properly. Dust wipe testing may be used following the cleanup.

### **Documentation**

Documentation should be maintained on the methods used to decide on the level of risk and the notification of residents.

Documentation for training should also be maintained and should include:

- Completed sign-in sheet
- Copy of the training agenda
- Copy of training certificates (if any)
- Examination grade for each attendee (if any)
- Copy of the examination (if any)

Time: 30 minutes

## WORKING LEAD SAFE EVERYDAY

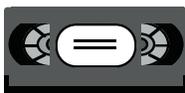
### A COURSE REVIEW

*Use the scenarios in the Working Lead Safe **Training Video** to discuss how the learning from this course will apply to students' daily jobs. Ask what things will need to change.*

*To start this module, show the scenarios, one at a time, stopping after each scenario to discuss the issues presented. The discussions serve as a course review and raise issues about responsibility and applying the learning in the real world.*

Now back to our friends that we caught creating hazards earlier today. Now they have learned how to work safe but they are still learning how to apply what they've learned back on the job. See what you think.

SHOW WORKING LEAD SAFE VIDEO 8A



### SCENARIO 1: LUNCH BREAK

The following issues are raised in the scenario:

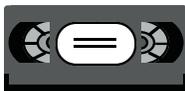
- Taking a lunch break
- Securing the work area for short periods
- Using proper personal hygiene

*Ask participants to discuss how these issues are or should be handled at their job. You may ask these or other questions.*

Q: Will you need extra equipment to ensure that these tasks are handled safely?

Q: Do you have access to all the equipment you will need?

## SHOW WORKING LEAD SAFE VIDEO 8B



## DISCUSSION

**SCENARIO 2: MANAGING MULTIPLE DEMANDS**

The following issues are raised in the scenario:

- Isolating residents from the work area
- Managing the conflict when asked to leave a work site in the middle of a job
- Taking safety precautions if you have to leave a task uncompleted
- Telling a resident of the importance of not disturbing a work site

*Ask participants to discuss how these issues are or should be handled. You may ask these or other questions.*

Q: What precautions must be taken to isolate residents from the work area?

Q: How do you manage a conflict when asked to leave a work site in the middle of the job? Should there be a discussion, prior to starting a lead-based paint job, on the procedures to be followed if there is a need to stop work before a task is completed?

Q: Who should be a part of this discussion?

Q: What safety precautions must you take if you have to leave a job before it is completed?

## SHOW WORKING LEAD SAFE VIDEO 8C

**SCENARIO 3: REPORTING A POTENTIAL LEAD-BASED PAINT HAZARD**

The following issues are raised in this scenario:

- Managing lead-based paint in place to protect residents
- Reporting lead-based paint conditions that are not listed on the work order
- Telling the resident of a potential problem
- Managing jobs that involve more risk than the work order describes

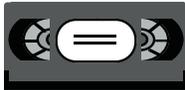
DISCUSSION



*Ask participants to discuss how these issues are or should be handled. You may ask these or other questions.*

- Q: What is the best way to report a potential problem or conditions that are not listed on the work order?
- Q: Is this your responsibility?
- Q: How do you tell the resident of potential problems?

SHOW WORKING LEAD SAFE VIDEO 8D



**SCENARIO 4: RESPONDING TO RESIDENT REQUESTS TO DO ADDITIONAL WORK**

The following issues are raised in this scenario:

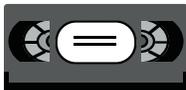
- Being asked to do work for which you are not qualified
- Knowing the importance of using the proper equipment to perform a job safely
- Explaining to a resident the importance of following safe work practices

DISCUSSION



*Ask participants to discuss how these issues are or should be handled. You may ask these or other questions.*

- Q: What do you do if a resident (or management) asks you to do work that is not on your work order?
- Q: Do you respond differently based upon your qualifications to do the work or on the size of the task?
- Q: How do you tell a resident that you'd like to do that task, but it may involve lead-based paint and you're not prepared to do that type of job?
- Q: Should this be your responsibility?

**SHOW CLOSING VIDEO**

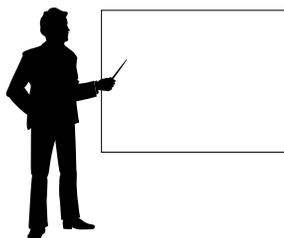
*Introduce the last video with the simple question:*

"What is this all about?"

**WHAT ABOUT THE CHILDREN**

*After the video, finish the instruction with:*

We have a big problem with lead exposure to our nation's children. But we have come a long way. In 1978 we had 4.5 million kids with excessive lead exposure, today the number is down to 1.7 million due to changes in gasoline, food packaging, and paint. Lead poisoning is preventable, and your work can continue to reduce that number.

**ADMINISTRATIVE TASKS****CLOSING****FEEDBACK**

*Ask the class:*

- *What was good/bad with this course?*
- *How can it be improved?*

**SIGN-IN/OUT SHEET**

- *Thank students for their attention.*
- *Ask everyone to sign out so that they will get credit for attending.*

**TRAINING FOLLOW-UP**

*Put training materials back in order to get ready for the next class.*

**REMINDER**

*The next four pages provide an outline for additional training and exercises that may be conducted during a second day of hands-on training.*